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ABSTRACT

This sixth version of "A Manual for Manpower Accounting in Higher Education" is the product of a six-year joint effort by NCES and NCHEMS. Data on manpower resources within an institution reflects the nature, amount, and use of the asset or resource that its personnel represent. Conventional personnel data, by contrast, typically consist only of items important in distinguishing between individuals. Effective management of an institution demands that both types of data be maintained. Information needed for the planning and management of manpower resources should be: (1) descriptive of the kinds and amounts of resources available to the institution (analogous to a description of the various fund groups and the dollars available for allocation in each); (2) information about the allocation of these resources to programs and their use there (the equivalent of budget and expenditure information); and (3) information about the activities conducted by manpower resources (the analog of objects of expenditure). A useful description of the pool of available manpower resources also requires both some way of classifying the resources that will allow differentiation of distinctly different ones; and a way of measuring the amounts of each type of resource available for assignment in the institution. (MSE)

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A Manual for Budgeting and Accounting for Manpower Resources in Postsecondary Education

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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NCES 77-343

A Manual for Budgeting and Accounting for Manpower Resources in Postsecondary Education

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NATIONAL CENTER FOR EDUCATION STATISTICS

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Foreword

This document is the product of a 6-year joint effort by the National Center for Education Statistics (NCES) and the National Center for Higher Education Management Systems (NCHEMS) at WICHE. An NCES-funded contractual arrangement guided the first 2 years; thereafter, both organizations collaborated on an informal basis. This is the sixth version of a manual originally published by both NCHEMS and NCES as *A Manual for Manpower Accounting in Higher Education* with NCHEMS designating it as Technical Study No. 39, and NCES appending a sub-title of "Preliminary Edition". The "Acknowledgements" in that Preliminary Edition, by its author and NCHEMS project direct, Dr. W. John Minter, is included in this publication as appendix D. It describes the procedures under which the Preliminary Edition is written and gives credit to contributors. Their contributions are a significant influence in this restructured *Manual.*

The first use of the original *Manual* (in the Higher Education General Information Survey in 1972-73) identified a number of problems and prompted further review of the document. A committee assembled by the American Council on Education, with representation from the National Association of College and University Business Offices, after reviewing the *Manual* and its intended use, prepared a report, which, together with comments received from other representatives of the higher education community and experience gained through implementation activities of NCHEMS, formed the basis for many of the major changes in this *Manual.*

Assembling all the comments, Dennis Jones of NCHEMS and Theodore Drews of NCES collaborated in rewriting of the *Manual,* which version received still another field review. While most appreciative of the comments and efforts by persons and agencies outside NCES and NCHEMS, we must stress that this *Manual* is the product and responsibility of the 2 organizations, with the authors assuming responsibility for accuracy and presentation.

In the interest of economy, and awareness that even the slightest changes in wording might raise questions of intended meaning, NCES has utilized the NCHEMS-edited and photo-offset copy for the main body of the *Manual,* NCES assumes no responsibility for stylistic, syntactical, or grammatical aspects of this work.

This version of the *Manual* is also currently in distribution as NCHEMS Technical Report No. 84. As with other such publications, NCES and NCHEMS will continue to welcome comment on the *Manual's* content and utilization. In view of current rapid development and change in postsecondary education data systems, it is expected that the process of revision and improvement will continue uninterrupted.

Marie D. Eldridge
Administrator

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1
Introduction

A. Manpower as a Resource

Manpower—the combined skills, capabilities, and sensibilities of individual human beings—represents a resource that is fundamental to the operations of all organizations. To be sure, manpower resources are in many ways different from financial resources and from physical resources such as buildings and pieces of equipment. Human beings possess many unique and special qualities that have no counterparts in other types of resources. Many of these special qualities are difficult, if not impossible, to measure or even to describe in any satisfactory way. Because of these unique qualities of manpower resources, their value to an organization may be difficult to express in conventional economic terms or to quantify otherwise. These striking differences do not, however, negate the legitimacy of considering manpower a form of resource. Neither should they obscure some basic similarities between manpower and other types of resources, nor should they serve as an excuse to avoid all attempts at developing some quantitative measures of the manpower resource. (The basic similarities are being recognized most explicitly by economists in considering labor—manpower—as one of the basic factors of production.)

To institutions of postsecondary education, manpower represents an especially important type of resource—especially important in several ways. Manpower resources are important because institutions of postsecondary education typically depend more heavily on them than on other types of resources for accomplishing their purposes. The fulfillment of the responsibilities assigned to these institutions by our society (the creation and dissemination of knowledge) is dependent on instructional and research processes that, by their very nature, utilize large amounts of human resources. The extent of the dependence of postsecondary education's productive processes on manpower resources is dramatized by data indicating that, at the average institution, almost 75 percent of the expenditures are for wages, salaries, and associated fringe benefits. In short, the preponderance of expenditures at the typical institution are directed toward the acquisition of the necessary manpower resources. Admittedly this situation is not universally true. It is possible to substitute one resource for another (such as the classic example of the substitution of capital—equipment—for labor or manpower) and thereby devote relatively less or more to the acquisition of personnel resources. While such substitutions can be made, they generally are not made in education. With few exceptions postsecondary education remains a labor-intensive (or manpower-intensive) industry.

The importance of manpower resources to institutions of postsecondary education, however, is recognized as extending well beyond a significance expressed in financial terms. The academic processes of these institutions cannot be carried on with just *any* manpower resources. The manpower resources required are, for the large part, individuals with very special kinds of skills, interests, and attitudes. Without individuals who are both intellectually qualified and temperamentally disposed toward teaching, the instructional process ceases to function effectively. Without individuals who are both intellectually qualified and personally interested in scholarly pursuits, there is no research. While there are differing opinions concerning the quantity of manpower resources required for the satisfactory (or optimal) conduct of these processes, there is much less disagreement on the point that manpower resources with certain special characteristics are required. Substitution of other types of manpower resources, regardless of the financial cost or savings, will not result in an acceptable result. It is this fact, not the preponderance of financial resources devoted to the acquisition of manpower resources, that makes these resources of critical importance to institutions of postsecondary education.

B. The Importance of Managing the Manpower Resource

In any organization or industry in which a single type of resource or "factor of production" accounts for 75 percent of the annual expenditures, prudent management requires that particular attention be devoted to the acquisition and utilization of that resource. It is almost axiomatic in postsecondary education that the key to financial control is the control of expenditures on manpower resources. To be sure, the cost incurred in acquiring manpower resources by itself could justify an emphasis on managing the manpower resources in an institution of postsecondary education. In the final analysis, however, the requirement for management of manpower resources in educational enterprises is determined by many additional factors also.

Primary among these factors is the dependence on manpower resources for achieving the programmatic objectives of the institution. As noted above, people are the main avenues through which the academic objectives of an institution are accomplished. As a result, there is a direct and strong relationship between the managerial decision regarding the allocation of manpower resources and the achievement of academic objectives. Thus, the allocation of manpower resources to specific programs or activities is a crucial managerial decision; it is also a difficult managerial decision. Most employees of an institution are qualified, in greater or lesser degrees, to undertake a variety of activities. Most faculty members can teach intermediate or advanced courses in addition to the more elementary courses. Similarly, most faculty members who are heavily engaged in research activities are also capable of, and interested in, doing some teaching. In many colleges, individuals whose primary responsibilities are administrative also teach as a result of either institutional policy or preference.

Just because individuals *can* undertake a variety of activities, however, does not mean that they either want to or are equally adept at the full range of activities. Some individuals are better teachers than researchers; others are better administrators than teachers. In order to maximize the *effectiveness* of an institution, or a program within an institution, the manager must attempt to allocate manpower resources so that individuals will be assigned to those activities they are best able to perform. Program or institutional managers, however, are not unconstrained in their decision concerning allocation of manpower resources. As individuals, as human beings, the people who collectively constitute an institution's manpower resources have preferences as to the activities they want to perform. Some prefer to teach, others to involve themselves in research activities. Unfortunately, capabilities and preferences do not invariably coincide. In overriding preferences in the pursuit of institutional efficiency or effectiveness, the manager also incurs some costs. In summary, the managerial decision concerning allocation of manpower resources not only affects the extent to which programmatic objectives are reached and the resulting quantity and quality of programmatic outcomes but it also affects people in a very personal way. It is crucial that the manpower resources be managed well—and with sensitivity.

C. Information About Manpower Resources

The fundamental importance of manpower resources to the conduct of the activities of a postsecondary education institution creates an unavoidable need for information about those resources. Within the institution, data are needed to employ an individual, generate a paycheck, publish a telephone directory, assign teachers to classes, and for innumerable other purposes. Users external to the institution also have needs for manpower resource data—to support accreditation reviews, to calculate the amount of resources to be appropriated, to operate pension programs, and to serve many other purposes. In short, a multitude of users, both internal and external to institutions, have understandable needs for a wide variety of data about employees and the manpower resources of postsecondary education institutions. Because the specific requirements for such information are potentially so numerous, varied, and discrete, it is often difficult to see the forest instead of the trees—to maintain perspective about personnel data and to approach the problems associated therewith in a consistent fashion.

In this regard, a recognition of the basic distinction between what might be termed *personnel* data and *manpower resource* data is crucial. On one hand, institutions necessarily maintain an array of information about specific individuals, their characteristics, their performance, and their contributions to their profession and the institution. For example, institutions typically maintain such data as name, address, social security number, title and rank, employment and educational histories, records of periodic evaluation and promotions, salary and benefit data, listings of publications, sex, age, race, marital status, citizenship, and other items that pertain personally and individually to employees of the institution. Such data are typically maintained in a personnel office with a part of them generally mechanized, particularly those that are used in the payroll function. In addition, however, there is also need of data about the manpower resource these individuals represent. Rather than focusing on those data items most important in distinguishing between individuals and that describe their unique, personal characteristics, manpower resource data is concerned with the nature, amount, and use of the asset or resource that these individuals represent. In this regard, maintenance of the individual's identity is not the objective; description of the interrelationships between manpower resources and the employment setting take precedence.

Effective management of an institution demands that both types of data—that is, personnel and manpower resource—be regularly maintained. The scope of this *Manual*, however, is limited to a consideration of only manpower resource data. It is recognized that in establishing a system of records within an institution, it would be customary and appropriate to establish first that portion of the system relating to the personal characteristics of the individual employees (personnel and payroll systems). The fact that this *Manual* deals only with manpower resource data should not be taken as an indication of relative importance of the two major kinds of data about employees; it reflects only an assessment of the currently greatest need. In order to conduct their day-to-day affairs, institutions have had to develop at least a marginally acceptable personnel system. Observation and experience indicate that the institutional capacity to acquire and use manpower resource data is considerably less well developed, in spite of the fact that manpower resource data are those most relevant in the context of planning and accountability—and thus the subject of much of the data exchange and reporting both within the institution and between the institution and a variety of external agencies.

The absence of uniform, consistent, and generally accepted terms and definitions concerning manpower resources, and the communications problems thus created, led to the decision to select manpower resource data as the subject of this *Manual*. It is hoped that, with the satisfactory completion of this *Manual*, work can begin on the companion document that will have personnel (individual) data as a focus. Taken together, these two documents will describe a total system of records about an institution's employees.

As a final note, it must be stated that the dichotomy between personnel and manpower resource data is not always as clear-cut and inviolate as the previous discussion might make it appear. For example, information about tenure status is a descriptor not only of an individual but also of the permanence of the resource the individual represents. To the extent that items of personnel data are also relevant to a description of the availability and use of manpower resources, those items are identified and defined in this *Manual*.

D. Organization of the *Manual*

The subsequent chapters of the *Manual* describe, in detail, the basic elements of an information system designed to support the management of manpower resources in institutions of postsecondary education. Chapter 2 provides a general overview of a system of manpower resource information. Chapter 3 contains a description of a recommended classification scheme for manpower resources and definitions of the categories within that scheme. It also suggests the additional information most useful in specifying and describing the manpower resources in each of these categories. Chapter 4 describes a framework for organizing and dis-

playing information about the allocation of manpower resources to, and the actual utilization of resources by, institutional programs. Chapter 5 describes, in a general way, procedures for organizing information that indicates relationships between resource categories and activities. A Glossary of Terms, some additional classifications and subdivisions of personnel, the NCHEMS Program Classification Structure, and other related material are contained in the Appendices.

2

An Overview of Manpower Resource Information

For whatever reason, information systems designed specifically to support planning and management activities related to manpower resources have received relatively little attention in institutions of postsecondary education. As a result, the underlying concepts have not been particularly well developed, and, to the extent they have been developed, they are not well and generally understood. By building on the conceptual and practical bases developed in the context of the management of other types of resources (particularly financial resources), however, it is possible to identify the major kinds of information needed for the planning and management of manpower resources. Using financial resources as an analogy for identifying the components of a set of information about manpower resources, the following general types of information can be considered as being of greatest importance and utility:

1. Information that describes the kinds and amounts of manpower resources available to the institution (information that is analogous to a description of the various fund groups and the dollars available for allocation in each).
2. Information about the allocation of manpower resources to programs and the utilization of those resources (the equivalent of budget and expenditure information).
3. Information about the activities conducted by manpower resources (the manpower resource analog of objects of expenditure).

A broad overview and brief discussion of each of these general kinds of information are contained in following sections of this chapter. Detailed discussions of each of these areas, including identification and definition of data items and description of necessary procedures, are contained in Chapters 3, 4, and 5.

A. Describing the Pool of Available Manpower Resources

There are many dimensions and various degrees of specificity that can be incorporated into a description of an institution's pool of available manpower resources. At the most elementary level, a description could be obtained by simply counting the number of employees. Such a description is seldom very useful, however, in that it in no way differentiates between groups of employees (for example, it does not distinguish between executives and clerical workers). Neither does it provide a particularly accurate measure of the *amount* of resources represented by the count of employees because a part-time employee is counted the same as a full-time employee. Thus, if a useful description of the pool of available manpower resources is to be obtained there is need of:

1. *some way of classifying* manpower resources that will allow differentiation of distinctly different resources, and
2. *a way of measuring* the amounts of each type of manpower resource available for assignment within the institution.

In developing a way of classifying manpower resources, the primary requirements are not only that the resulting categories distinguish between distinctly different kinds of manpower but also that the categories be supportive of the planning and management functions related to this particular kind of resource. From this perspective, the most useful categorization scheme is one that classifies manpower resources in accordance with the kinds of services the employee can provide to the institution (that is, in accordance with the kinds of activities to which the individual would normally be assigned). In short, institutional plan-

ning and management requires an assessment of the amount of those resources available for assignment to instruction and research activities, the amount available for assignment to administrative activities, and so forth. As with other resources, the manpower resource is seldom so specialized that it can be assigned to one and only one kind of activity. Just as classrooms can be used for office space if the need arises, so can instructional staff be assigned administrative duties (as, in fact, they often are). In such cases, the classification of an individual must be based on the *institutional* view of the kinds of activities the individual would be expected to conduct. For example, individuals may view themselves as researchers, but if they are employed by the institution primarily to perform administrative functions, then that is what they are for purposes of manpower resource accounting and budgeting. This *Manual* approaches classification of manpower resources from the institution's perspective; it ignores the employee's self-image with regard to such classification except to the extent it is concurred in by the institution.

In addition to the major distinction based on expectation of kinds of services to be provided, there are several other useful and necessary descriptors (and more specific delineators) of the manpower resources. Within that category dealing with the manpower resources available to conduct instruction and research activities, there is need to further distinguish between the academic disciplines (to separate the physical scientists from the social scientists, and so on). There is some need to describe the level of "quality" of the resource—information about academic preparation (highest degrees earned) and about rank. Further, there is need for information about permanence of the resource—data about age and tenure status. Finally, for reasons arising largely outside the institution, there is need to describe the manpower pool in terms of its sex and ethnic composition.

As a final step in describing the pool of available manpower resources, there is a requirement to establish some quantitative measure of *how much* of each kind of resource is available. In the absence of such a measure, institutional managers would be in the same position as if the existence of an endowment fund was known, but the value of the fund was not known.

In establishing a measure of manpower resource, it is necessary to go beyond counting employees and to consider their differing conditions of employment (full-time versus part-time, and so forth). The measure of *full-time equivalent* (FTE) employees is the most commonly used such measure (although in this *Manual* a somewhat different measure is suggested).

In summary, a description of the pool of available manpower resources requires:

1. a capability to distinguish among and classify the major different kinds of resource,
2. data that seem to further characterize the resources within each of the major categories (the amount of information deemed necessary to adequately describe the manpower resources in each category may vary widely depending on the conditions at any particular institution), and
3. a means of measuring the amount of each type of available resource.

A more detailed and extensive discussion of this topic is contained in Chapter 3.

B. Describing the Allocation and Utilization of Manpower Resources

As noted previously, manpower resources typically are the largest and most important single "good" purchased by an institution of postsecondary education. It follows that management decisions dealing with the allocation or distribution of these resources are among the most important management decisions to be made within an institution. The net result or summary of these decisions is an assignment of particular amounts of each category of manpower resource to specific institutional programs—in essence, a *budget* of manpower resources. The importance of the manpower resource budget is magnified by the nature of the decisions that are subsumed within the process of its development. For example, to a large extent the quantity of certain institutional outcomes is determined in the process of deciding on manpower resource allocations (by allocating resources to instruction rather than research programs, the amount of both instructional and research outcomes are affected). At a very detailed level of the

manpower budgeting process, decisions concerning the quality of instructional outcomes may be affected also (assignment of Professor X rather than Professor Y to a particular course may affect the quality of education provided to students in that course). Finally, because of the weight of manpower resources vis-a-vis other types of resource in an institution's "production" process, the manpower budget, to a large extent, determines the allocation of financial resources.

The similarities between the *manpower* resource budget and the *financial* resource budget extend to the kinds of information required for management purposes. Specifically, the required information describes the amount (usually expressed in FTEs or some similar measure) of each type of manpower resource allocated to each institutional program. The level of detail at which this information is developed and maintained is a function of the size and complexity of the institution and of the managerial level at which the information is to be used (a department chairman will require information on an individual-by-individual basis, while a vice-president typically will require only aggregate information). The general form that a manpower resource budget may take is shown diagrammatically here.

The management of resources—manpower and otherwise—does not end with the completion of the budgeting or resource allocation process. In addition, management must be concerned with monitoring and measuring the actual utilization of the various resources. For financial resources this process is highly formalized: monthly statements of expenditures generally are produced and annual audits of expenditures (including expenditures for manpower) are developed. The monitoring of the utilization of the manpower resources that have been purchased is much less formalized and, in many institutions, is nonexistent except as utilization of manpower resources is reflected in the reports on financial expenditures (as the personnel line items in the monthly expenditure reports). There are good and sufficient reasons why the "system" for reviewing the use of manpower has not been developed to the level of sophistication of that developed for assessing (and controlling) the expenditure of financial resources. For one thing, financial expenditure data provide an indirect, but exceedingly useful, mechanism for monitoring the utilization of human resources. If the budget for wages and salaries is being exceeded, there is an indication of the situation with regard to the manpower budget. Further, the fiduciary requirements imposed on institutions generally are much more extensive with regard to financial resources than with manpower. And finally, there is the inherent human resistance at all levels to the constraints of performance accountability.

The relative importance of continuous scrutiny of the expenditure of financial resources and the paucity of measures and procedures should not obscure the need for some level of formal managerial attention to the utilization of manpower resources. Part of this need originates as a fiduciary requirement imposed from without the institution (such as the requirement that certain manpower resources be allocated to specific research programs in order to satisfy contractual agreements with various funding agencies). Potentially much more

Summary of Allocations of Manpower Resources to Programs

	PROGRAMS							
Manpower Resource Categories	Instruction	Research	Public Service	Academic Support	Student Service	Institutional Support	Independent Operations	Student Access
"Faculty"								
"Administrators"								
". . ."								
"Clerical"								
". . ."								
etc.								

important, though, are the uses of such information in the internal management of the institution. As was noted, the allocation of manpower resources to institutional programs represents one of the most important managerial functions within an institution of postsecondary education. The importance of these decisions almost demands the incorporation of any information gleaned from past experiences—the improvement of resource allocation decisions is largely dependent on recognizing and understanding deviations from past manpower resource budgets. As a result, there is a substantial need for information that provides a means of comparing the *planned* utilization of manpower resources with the *actual* utilization of those resources. To facilitate such comparisons, the information concerning actual utilization of resources must be displayed in the same format as the manpower resource budget. Again, the amount of detail required is determined by the user of the information.

On the other hand, a mandate to improve the match between manpower budgets and manpower utilization must not acquire status as an intrinsic value, nor must it spawn an effort to reduce flexibility in the utilization of manpower. While it is rebuttable, the presumption must be that either the budget process was defective, or the assumptions and conditions changed between the time of budget and utilization. In either case, the information is equally valuable to the manager who can develop future manpower resource budgets from a better base of knowledge.

C. Describing Activities Performed by Manpower Resources

The fundamental items of information concerning manpower resources required for both institutional management and for communicating with external constituencies are those identified above—that is, information that describes the pool of available manpower resources, the allocation of those resources to institutional programs, and the actual utilization of those resources by the programs. This is not to say, however, that these kinds of information will be sufficient for all purposes within an institution. In fact, the information concerning allocation and utilization of manpower resources actually may obscure certain relationships important to institutional managers. As an extreme example, consider the case of a faculty member who, in the resource allocation process, was assigned to teach graduate physics courses, but who in actuality served as the technician in charge of setting up freshman physics laboratory experiments. Both the allocation and the utilization information would show a faculty resource associated with the physics instruction program; in the process, some exceedingly valuable information would be hidden.

In order to illuminate such situations within the institution, and, at the same time, to describe better how the various categories of manpower resources were intended to be (or were) utilized, an additional item of information is required—it is necessary to indicate the general *types of activities* performed by individuals in the various resource categories. For the most part, it is anticipated that there will be a good deal of congruence between the resource categories and the activities performed (that is, clerical employees generally will perform clerical activities, and so forth). Many exceptions to this situation will be found, however—administrators will teach, faculty will administer, and so forth. To compile this information, it is necessary to define general categories of activities and to provide a framework for associating activities information with manpower resource information, as shown diagrammatically here. A more thorough treatment of this aspect of manpower resource management is included in Chapter 5.

D. General Considerations

The data item definitions and organizing schemes presented in this *Manual* adhere to two general concepts common to manuals produced by NCES and NCHEMS. The first is the use of the NCHEMS Program Classification Structure (PCS) as the basic organizing scheme for information about the allocation and utilization of manpower resources. In managing any institution of postsecondary education, information about a variety of resources, activities, outcomes, and so forth must be considered concurrently. Further, it must be possible to interrelate these items of information without difficulty. This means that manpower

Summary of Allocation of Manpower Resources by Activity

Manpower Resource Categories	ACTIVITY CATEGORIES						
	Scheduled Teaching	Unscheduled Teaching	. . .	Research/ Scholarship Activities	Administrative	. . .	Etc.
Faculty							
Administrators							
. . .							
Clerical							
. . .							
etc.							

resource information should be categorized in the same way as facilities data, finance data, and so forth. The Program Classification Structure is the currently available organizing scheme most capable of promoting the necessary interrelating of these various types of information.

The second is the definition of data categories in ways intended to make them commonly applicable across the various programs within an institution, as well as among institutions. Many of the important uses of information, including information about manpower resources, require comparison of data—among programs within an institution, among similar programs in different institutions, or for the same program over time. The ability to make such comparisons is dependent on the use of standard definitions of the data elements being compared. As a result of this need for standardized definitions, every effort has been made to define the manpower resource categories in ways that are both least likely to result in misinterpretation and most in keeping with common institutional practice.

Finally, a note concerning level of detail of the manpower data. The illustrations in this *Manual* show the data being displayed at relatively high levels of aggregation. Through use of the PCS, considerably more disaggregation is possible. The level of detail required in any given instance must be determined by the user; no single level of detail can be recommended that will be applicable in all circumstances.

3
Describing Available Manpower Resources

In the previous chapter, it was noted that in order to describe the manpower resources available to an institution of postsecondary education, it is necessary to:

1. distinguish among and classify the major different kinds of manpower resources,
2. further characterize and describe the manpower resources in each of these categories, and
3. measure the amount of each type of available manpower resource.

This chapter addresses each of these areas in more detail. Section A contains a recommended classification scheme for manpower resources as well as definitions for each of the manpower resource categories. Section B identifies and defines those items of information typically used to further characterize these manpower resources. Finally, Section C describes a set of procedures for use in arriving at a measure of the amount of available resources in each manpower category.

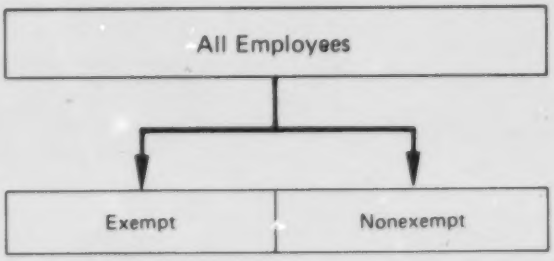
A. Categories of Manpower Resources

The operation of an institution of postsecondary education requires the performance of widely differing kinds of activities. Students must be taught and research interests pursued; at the same time, the business affairs of the organization must be managed, reports typed, and the floors swept. These activities are so diverse in nature that they cannot all be effectively and efficiently performed by individuals having a common set of skills and capabilities. A certain degree of specialization is required among the personnel who carry out the institution's functions.

It is true also that some quite different kinds of activities display considerable overlap in the kinds of skill required for their effective performance. Thus, individuals who possess the requisite abilities and interests may be able to serve in two functions that might otherwise be considered discrete. In the context addressed by this *Manual*, such a situation arises frequently when an individual performs both instruction and research activities; such individuals commonly are labeled as "faculty members." The result is a situation in which postsecondary institutions hire certain general categories of employees to perform certain general kinds of activities, and in which each category of employee represents a different kind of manpower resource available to the institution.

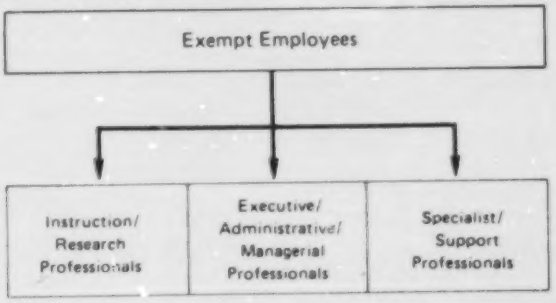
The balance of this section presents a classification scheme composed of seven distinct categories of manpower resources. The particular manpower resource categories and their definitions have been developed to accommodate certain legal distinctions and common institutional practice. The intent has been to develop the minimum number of categories consistent with a requirement that each category be generally definitive of a distinct kind of manpower resource.

The federal government's legal distinction between "exempt" and "nonexempt" employees is retained in the manpower resource classification scheme. To comply with the Fair Labor Standards Act, institutions must assign their employees (on the basis of criteria included in the legislation*) to one of these two categories. This distinction typically is incorporated into institutions' record systems and into manpower resource classification schemes devised by individual institutions. Thus, as a minimum, a manpower resource classification scheme must reflect the distinction between exempt and nonexempt employees.



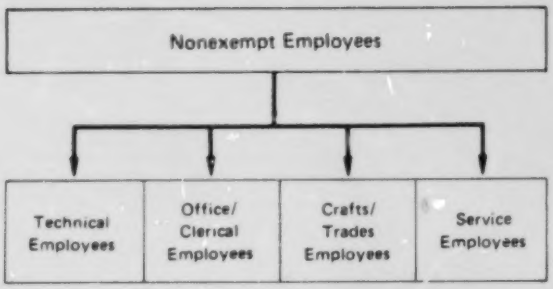
*Section 13 of the Fair Labor Standards Act of 1938, as amended, indicates that an exempt employee is "any employee employed in a bona fide executive, administrative, or professional capacity . . ."

While the categories of exempt and nonexempt provide necessary and useful information, more detail is required within each of these categories for management purposes. As noted in the previous chapter, individuals are not uniformly qualified to perform all the major kinds of tasks required to operate an institution of postsecondary education. Carrying this further, it can be noted also that the distinction between exempt and nonexempt employees does not suffice to identify groups of individuals having more or less similar capabilities. Within the exempt category, for example, would be those employees available to perform instructional and research activities (in conventional terms, the faculty) and those professional employees responsible for the executive direction and administrative support of the organization. To distinguish between, and to effectively allocate, these distinctly different kinds of manpower resources, it is necessary to identify separately at least two subcategories within the exempt category—subcategories that might be labeled as (1) Instruction/Research Professionals and (2) Executive/Administrative/Support Professionals. This distinction is consistent with a delineation made at almost all institutions of postsecondary education; while there are institutional differences regarding the categorization of certain groups of individuals (such as department chairmen), the basic distinction between instruction/research employees and all other exempt employees is made almost universally. For many purposes a further division of the "nonfaculty" category also is highly desirable. Within this single category are such diverse kinds of individuals as vice-presidents, administrative department heads, accountants, purchasing agents, and librarians. Because of this diversity, it is clear that considerably more than two or three subcategories would be required if the objective were to create completely homogeneous groupings. Since such proliferation of categories would defeat the purpose for which such subcategories were created, some distinctions that are useful managerially, but that do not yield completely homogeneous groups, would appear appropriate. As a result, this document suggests a distinction within this larger category based on *supervisory* responsibilities of the individuals—a subcategory entitled Executive/Administrative/Managerial Professionals for exempt employees with supervisory responsibility of a department or other organizational unit and another labeled Specialist/Support Professionals for those not having supervisory responsibilities.* The categorization scheme for exempt employees (manpower resources) presented in this *Manual* can, therefore, be illustrated as:



There is a similar need for more detail within the nonexempt category of manpower resource. The extreme diversity of activities performed by nonexempt employees and the greater variation in institutional practice with regard to categorization of these employees adds difficulty to the identification of appropriate subcategories for nonexempt employees; on the other hand, in this nonexempt category it is possible to borrow a great deal from private business practice and nomenclature. Using the criterion that manpower resources should be identified for management purposes according to the *type of activities* to be performed, it is possible to suggest a limited number of categories that identify groups of individuals employed to perform distinctively different kinds of activities. Specifically, it is suggested that the subcategories of (1) Technical, (2) Office/Clerical, (3) Crafts and Trades, and (4) Service Employees span the range of nonexempt employees while at the same time describing the distinctly different groups of nonexempt manpower resources. The categorization scheme for nonexempt employees presented in this *Manual* therefore can be described as follows:

*It should be noted that, through addition of identification of programs to which individuals are assigned, much finer distinctions are possible (see Chapter 4). For example, a Specialist/Support Professional assigned to the library program can be readily identified as being different from a Specialist/Support Professional assigned to the student counseling program.



By way of summary, the complete scheme for categorizing manpower resources presented in this document is shown below.

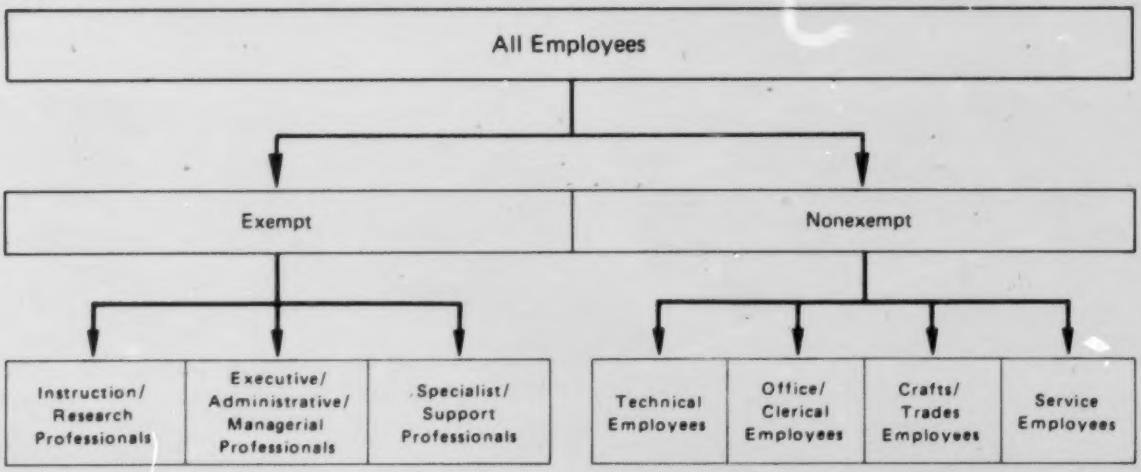
Each of the terms included in this categorization is defined below. An attempt is made to indicate a "conventional" categorization for certain groups of employees for which more than one category might, on the surface, appear appropriate. Additional items of information considered most useful in describing each of the various categories of manpower resources (such as sex, race, age, and so forth) are considered in the following section of this chapter.

Employee: Any individual being compensated by the institution for services rendered. Included are individuals who donate their services, if the services performed are a normal part of the institution's programs or supporting services and would otherwise be performed by compensated personnel. Specifically excluded are employees of firms providing services to the institution on a contract basis.

Exempt Employee: An employee whose conditions of employment and compensation are *not* subject to the provision of the Fair Labor Standards Act as amended. Exempt employees are not eligible for overtime payment. According to Section 13 of the act, an exempt employee is "any employee employed in a bona fide executive, administrative, or professional capacity. . ."

Nonexempt Employee: An employee whose conditions of employment and compensation are subject to the provisions of the Fair Labor Standards Act of 1938, as amended.

Instruction/Research Professionals: Individuals employed for the primary purposes of performing instruction and research activities. Typically includes only exempt employees (although in some, primarily proprietary, institutions they may be nonexempt). In most institutions of postsecondary education, these employees are the "faculty." This term "faculty" is advisedly not employed in this *Manual;* in similar manner, the term "academic" is also not used. These terms describe very different groups of employees at different institutions. At some institutions the terms "faculty" or "academic staff" may include only those who engage in classroom teaching. In others they will commonly include those who teach and/or do research. In still others, those terms will also include the exempt administrative staff, and there are some institutions in which those terms, for reasons such as the desire to extend fringe benefits to particular groups, may



include librarians, computer center staff, and others. Having neither sufficient desire nor powers of persuasion to change the definitions of these terms at the institutions, they are simply not used in manpower accounting. In this *Manual*, Instruction/Research Professionals include the exempt research staff. At most institutions it is appropriate to include department chairmen in this group, since their classification and assignments are still primarily instruction and research. However, there are a significant number of major institutions where the department head is actually an administrator who has been delegated specific administrative responsibilities and authority. Where such a situation exists, the department chairman is more appropriately classified as an Executive/Administrative/Managerial Professional.

Executive/Administrative/Managerial Professionals: *Exempt* employees employed for the primary purposes of managing the institution or a customarily recognized department or subdivision thereof. By convention this category includes deans but most commonly, although not always, will *exclude* chairmen of academic departments (who usually are classified as Instruction/Research Professionals). Inclusion in this category requires the individual to have supervisory responsibilities.

Specialist/Support Professionals: *Exempt* employees employed for the primary purposes of performing (typically) academic support, student service, and institutional support activities. *Excludes* individuals who have executive or managerial (supervisory) responsibilities in these areas. Includes such employees as librarians, accountants, systems analysts, student personnel workers, counselors, salesmen, recruiters, and so forth.

Technical Employees: Individuals employed for the primary purpose of performing technical activities (that is, activities pertaining to the mechanical or industrial arts or the applied sciences). This category includes *only nonexempt* employees.

Office/Clerical Employees: Individuals employed for the primary purpose of performing clerical activities. This category includes *only nonexempt* employees.

Crafts/Trades Employees: Individuals employed for the primary purpose of performing (manually) skilled activities in a craft or trade. Includes such employees as carpenters, plumbers, electricians, and so forth. Includes *only nonexempt* employees.

Service Employees: Individuals employed for the primary purpose of performing service (often unskilled) activities. Includes such employees as custodians, groundskeepers, security guards, food service workers, and so forth. Includes *only nonexempt* employees.

It should be noted that all the categories in the manpower resource classification scheme are expressed in terms of the kinds of *activities* individuals are employed *primarily* to perform. The fact that the president of an institution may be expected to teach a class does not detract from the fact that he or she is (in all probability) employed *primarily* to perform executive and administrative activities, and is so classified.

Similarly, the fact that a faculty member may perform a variety of administrative or student service activities should not obscure the fact that the individual is employed *primarily* to perform instructional and research activities. In short, this manpower resource classification scheme is intended to "sort out" individuals in terms of the kinds of assignments the institution gives the employees, not the general kind of capability that they bring to the institution. The consideration of what these individuals actually do and how their capabilities actually are utilized requires the additional dimensions described in subsequent chapters of this *Manual*.

For many purposes, a classification scheme composed of these seven categories of manpower resource is sufficient. For other purposes, additional detail will be required. While no attempt is made in this document to suggest a classification scheme containing all the detail that might ever be needed by an institution, major subcategories

within each of the seven categories identified above have been developed. The classification scheme with this additional level of detail is outlined below.

1.0 Executive/Administrative/Managerial
- 1.1 Executive Officers
- 1.2
- 1.3
- 1.4

2.0 Instruction/Research
- 2.1 Senior Instruction/Research
- 2.2 Junior Instruction/Research
- 2.3 Teaching or Research Associate/Assistant/Fellow
- 2.4 Undesignated

3.0 Specialist/Support
- 3.1 Advanced Level
- 3.2 Intermediate Level
- 3.3 Entry Level

4.0 Technical
- 4.1 Advanced Level
- 4.2 Intermediate Level
- 4.3 Entry Level

5.0 Office/Clerical
- 5.1 Advanced Level
- 5.2 Intermediate Level
- 5.3 Entry Level

6.0 Crafts and Trades
- 6.1 Advanced Level
- 6.2 Intermediate Level
- 6.3 Entry Level

7.0 Service
- 7.1 Advanced Level
- 7.2 Intermediate Level
- 7.3 Entry Level

A description of these subcategories and an extended discussion of the considerations and criteria for the actual classification of employees into the major categories are contained in Appendix A.

B. Additional Important Descriptors of Manpower Resources

The classification of manpower resources according to the categorization scheme presented above is but the first, very general step in describing the pool of manpower resources available to an institution. Additional information about the manpower resource pool is also important for the support of planning and management decision making. To a large extent, these additional descriptors are related only to the Instruction/Research Professionals category. Among those descriptors are data about the discipline affiliation of the individuals included in this category. Also included are data about the "level" of the resource (data about highest earned degrees and about the faculty rank distribution of Instruction/Research Professionals). Finally, information about permanence—tenure status—of this category of manpower resources is typically acquired and used in a planning and management context.

In addition to those descriptors that are generally limited in application to the Instruction/Research Professionals category, there are those that have relevance across all categories. Among the most common of these are data about the sex and ethnic composition of the resource pool.

For several of these information items, a particular set of categories and their associated definitions have received acceptance, at least in the contexts of interinstitutional exchange and of reporting to external agencies. These categories and their associated definitions follow.

1. *Academic discipline distinctions.* For almost all intra-institutional planning and management uses, information about Instruction/Research Professionals further delineated by academic discipline or department is needed. It is just not sufficient to know the amount of instruction/research resource available; it also is necessary to know how many of these resources can be assigned to teach mathematics, how many to English, and so forth. In categorizing these resources according to academic disciplines, the categories contained in the *Taxonomy of Instructional Programs in Higher Education** are most typically used (at least for data exchange and reporting purposes).

2. *Highest degree earned.* For purposes of interinstitutional comparison the following categories were suggested:

> *Certificates and Diplomas (less than one year)*—An award for the successful completion of a course of study or program offered by a postsecondary institution. Certificates and diplomas in this category are

*Robert A. Huff, and Marjorie O. Chandler, *A Taxonomy of Instructional Programs in Higher Education* (Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education, National Center for Education Statistics, 1970).

NOTE: A new taxonomy is currently in preparation and can be expected to replace the currently used taxonomy in the future.

awarded for completion of any program covering any time span less than one academic year.

Certificates and Diplomas (more than or equal to one year)—An award for the successful completion of a course of study or program offered by a postsecondary institution. Certificates and diplomas in this category are awarded for completion of any program covering any time span between one academic year and two academic years.

Associate Degree (two years or more)—The degree granted upon completion of an educational program less than baccalaureate level and requiring at least two but less than four academic years of college work.

Bachelor's Degree—Any earned academic degree carrying the title of "bachelor."

First Professional Degree—The first earned degree in a professional field. Only the following degrees should be included: (1) M.D., (2) D.O., (3) L.L.B. or J.D. [if J.D. is the *first* professional degree], (4) D.D.S., (5) D.V.M., (6) O.D., (7) B.D., M.Div., Rabbi, (8) Pod.D., P.M.

Master's Degree—Any earned academic degree carrying the title of "master." In liberal arts and sciences, the degree customarily granted upon successful completion of one or two academic years of work beyond the bachelor's. In professional fields, an advanced professional degree beyond the first professional, which carries master's designation, such as L.L.M., M.S. (Master in Surgery), M.S.W. (Master of Social Work).

Doctoral Degree—An earned academic degree carrying the title of "doctor." Not to be included are first professional degrees such as M.D., D.D.S.

Other (Specify)—Includes all other categories of degrees/diplomas/certificates that cannot be categorized in any of the preceding categories such as specialist degrees for work completed toward a certificate.

Honorary degrees should not be considered.

3. *Rank or title.* For many reasons, institutions of postsecondary education bestow rank and/or other title designations on certain employees within the institution, particularly those in the Executive/Administrative/Managerial Professionals and Instruction/Research Professionals categories.

A wide variety of titles are used by institutions to designate individuals in the Executive/Administrative/Managerial Professionals category. A somewhat standardized list of these titles has been developed for use in the U.S. Office of Education HEGIS Surveys and in the survey of administrative salaries conducted by the College and University Personnel Association. For the convenience of the reader these titles and the associated codes are contained in Appendix B of this document.

In contrast, institutions tend to use a rather standard set of rank/title designations for Instruction/Research Professionals. While these designations are conventional or standard, there tend to be extreme variations in institutional practice with respect to the qualifications and assignments of individuals having the same title. Furthermore, at many institutions, many of the persons in the Executive/Administrative/Managerial Professionals and Specialist/Support Professionals categories also are designated with ranks or titles more generally reserved for Instruction/Research Professionals. As a result of these variations in practice, these titles do not provide a useful means for distinguishing categories of individuals for institutional comparisons. It is recommended that the standard categories used in this manual be used for interinstitutional comparison. The so-called "faculty" rank categories most typically used are:

a. Professor
b. Associate Professor
c. Assistant Professor
d. Instructor
e. Lecturer
f. Teaching Associate
g. Teaching Assistant
h. Undesignated

4. *Tenure status.* Primarily with respect to Instruction/Research Professionals, it is useful to collect information concerning the tenure status of employees since such data provide insight into the extent to which the manpower resources are essentially "fixed."

The term, "tenure" has acquired a meaning in the common parlance of education employment that is a unique modification of its meaning in all other contexts. In education, to "have tenure" is to have an indefinite appointment extending to the time of retirement, which appointment is terminable only by very special procedures. Consistently attaching the implied adjective, "indefinite" actually imposes a limit on the meaning of the term and limits its utility. Tenure is a "holding"

and in employment refers to the term or time during which one will hold an appointment. Thus, one's tenure can be for a fixed or determinable term, or it can be indefinite. It is suggested that the following tenure designations be used:

a. Tenured—individuals who have been granted tenure
b. Nontenured—individuals who are eligible for, but have not been granted, tenure
c. Not eligible—individuals who are not eligible for tenure.

In this *Manual,* the term "tenure" is not used without modifiers. The categories of tenure are:

a. Indefinite tenure, terminable only by special procedures
b. Appointment for a fixed term of more than one year
c. Appointment for one year
d. Appointment for term of a budget
e. Indefinite tenure, summarily terminable without recourse

5. *Race/Ethnic identification.* (Categories used by the U.S. Office for Civil Rights, the Equal Employment Opportunity Commission, and other Federal agencies, revised by the Federal Interagency Committee on Education in 1975.)

The concept of race as used by the Equal Employment Opportunity Commission does not denote clearcut scientific definitions of anthropological origins. An employee may be included in the group to which he or she appears to belong, identifies with, or is regarded in the community as belonging to. However, no persons should be counted in more than one race/ethnic category.

American Indian or Alaska Native—A person having origins in any of the original peoples of North America.

Asian or Pacific Islander—A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Pacific Islands. This area includes, for example, China, Japan, Korea, the Philippine Islands, and Samoa.

Black (not of Hispanic origin)—A person having origins in any of the Black racial groups.

White (not of Hispanic origin)—A person having origins in any of the original peoples of Europe, North Africa, the Middle East, or the Indian subcontinent.

Hispanic—A person of Mexican, Puerto Rican, Cuban, central or south American, or other Spanish culture or origin—regardless of race.

There should be no need in the records system for an "all other" category, since it is intended that the above categories be all-inclusive. It may be necessary to include some kind of "Refuse to Indicate" category, but if so, it must be understood that inquiries from the U.S. Office for Civil Rights and the Equal Employment Opportunities Commission will require the institution to acquire the information in some other manner, and to categorize such individuals into one of the above racial/ethnic groups.

In connection with the race/ethnic categories, the U.S. Office for Civil Rights also recommends retention of the citizenship/residency status of the employee in just two mutually exclusive categories:

1. U.S. Citizens and all other persons having a status that permits them to reside permanently in the United States, and
2. Nonresident Aliens; viz., a person who is in this country on a temporary basis and who does not have the right to remain indefinitely.

A precise definition for nonresident alien is contained in S 1101(a)(15)(A)-(L) of the United States Code, Title 8. Examples of persons with nonresident alien status are individuals in the United States to pursue a course of study (including students in the Department of State exchange program) and individuals in this country to perform temporary services or skilled or unskilled labor [8 USC(a)(15)(F),(LL), and (J)].

It should be noted that these items represent a minimum set required to describe manpower resources in ways important for planning—they do *not* represent the total list of information items necessary for all institutional purposes.

C. Measuring the Amount of Manpower Resources

Planning and management uses of manpower resources information require not only the ability to describe and categorize such resources, but also the ability to measure how much of each of the various kinds of resources are available for assignment to various of the institution's programs. A rough estimate of the amount of each kind of man-

power resource available to an institution can be obtained by simply counting the individuals in each of the various manpower resource categories. In the final analysis, however, it is not the number of individuals but the amount of time they are available over a given period (such as a fiscal or academic year) that determines the amount of manpower resource that is, in fact, available. This is a particularly important consideration with regard to the manpower resource categories within which part-time appointments are most common—for example, the Instruction/Research Professionals category. The prevalence of both part-time appointments (instructional staff on half-time appointments, adjunct appointments, and so forth) and full-time appointments for less than a full year (one semester, the academic year, nine months, and so forth) creates a situation in which "counting heads" while disregarding the appointment fraction and period yields a potentially exaggerated picture of the availability and use of manpower resources. These varying terms and conditions of appointment must be dealt with if the institution is to have an accurate measure of its available manpower resources.

There are a variety of ways to accomplish this particular objective, distinguished primarily by the level of detail at which the necessary calculations are made. The least detailed (and probably the most common) method for ascertaining the amount of manpower resources available under conditions where there are varying appointment arrangements depends on identifying individuals as being either full- or part-time employees and calculating the full-time equivalence of the part-time employees. The following table summarizes this calculation.

To complete this table, it is first necessary to enter data in columns (1) and (2)—that is, to enter data on headcount number of full-time and part-time employees in each manpower resource category. Distinctions between full-time and part-time employees are reasonably easy to make for most manpower resource categories; most employees are considered to be full-time if they work approximately 40 hours per week for the full year. Identifying which of the Instruction/Research Professionals is full-time is more difficult since institutional practice is often such that faculty members with eight- or nine-month contracts are considered to be full-time employees if they are employed full-time by the institution for that eight- or nine-month period. To be consistent, "full-time" for Instruction/Research Professionals should be defined on a 12-month basis also. The difficulties associated with gaining acceptance of this particular convention represent a severe limitation on this particular method for calculating the amount of manpower resource available, and make it necessary for many purposes to use the academic year or other academic period as the planning and accounting base.

Procedures for calculating full-time equivalence of the part-time employees are heavily influenced by the employment practices of the institution with regard to part-time employees. If, for example, all part-time employees in a particular category are considered to be half-time employees, the conversion to full-time equivalence is relatively straightforward. If on the other hand, part-time employees are employed under widely varying arrangements, this conversion must be made either on an almost individual-by-individual basis or on the basis of an average resulting from an analysis of

Manpower Resource Category	Number of Full-Time Employees Headcount (1)	Part-Time Employees		Number of Full-Time Equivalent Employees (1)+(3) = (4)
		Number of Employees Headcount (2)	Full-Time Equivalence (3)	
1. Instruction/Research Professionals				
2. Executive/Administrative/Managerial Professionals				
3. Specialist/Support Professionals				
4. Technical Employees				
5. Office/Clerical Employees				
6. Crafts/Trades Employees				
7. Service Employees				

historical data (for example, 1 part-time employee = .33 FTE). Where budgets and payrolls are computerized, the latter procedure may be feasible; where they are not, if the institution is sizeable, it may be necessary to resort to the former.

Several limitations with regard to the use of full-time equivalent employees as measures of the amounts of manpower resources available are evident from the above description. First, for certain categories of personnel (particularly Instruction/Research Professional) the definition of "full-time" varies and generally is not consistent with the term as applied to other categories of manpower resource. Second, there may be wide variations in the manpower resources represented by part-time employees—variations that can misrepresent the situation badly if averages are used to convert to full-time equivalent. To overcome these limitations, it is suggested that the concept of "service-months" be utilized as the preferable unit of measure of manpower resources.* The following format summarizes manpower resource information using this concept.

To enter data in this format, it is necessary to identify those individuals in each manpower resource category who are full-time and those who are part-time.* Full-time employees are those individuals available for full-time assignment, at least for the period being reviewed or analyzed. Part-time employees are those individuals employed full-time for shorter periods of time (less than the period under review) as well as those not available to the institution for 100 percent assignment even though they may be employed for the full period.

For most manpower resource categories, the calculation of service-months is very straightforward, consisting simply of counting the number of individuals in a particular category (for example, service) or subcategory within that category (for example, custodians)—and multiplying by the number of months per year (or such other period being studied or analyzed) full-time employees in that category typically work (most commonly either nine or twelve in an institution of post-secondary education). However, there are categories of manpower resources, particularly the Instruction/Research Professional category, in which employment arrangements vary widely from individual to individual. In these cases the service-month calculation necessarily becomes almost an individual-by-individual calculation. While this task is time consuming, failure to achieve an accurate measurement of the manpower resources represented by these individuals will almost cer-

*A "service-month" is defined as being equivalent to one individual working full-time for the period of one month. Service-months are calculated by multiplying the percent workload (relative full-timeness) by the number of months of the individual's appointment. As examples, an individual employed half-time for 6 months would be the equivalent of (.5 x 6) = 3 service-months of manpower resources. An individual employed full-time for nine months would be the equivalent of (1.0 x 9) = 9 service-months of resource, and so forth.

*Strictly speaking, such a distinction is not necessary to make this particular calculation. However, for many management purposes it is extremely useful to identify separately those employees who are full-time from those who are part-time. The primary benefit of this method is the latitude it provides institutions in defining full-time for their own purposes while still achieving a measure of manpower resources (service-months) that can be comparable from institution to institution.

Manpower Resource Category	Full-Time Employees		Part-Time Employees		Total Service-Months (2)+(4) = (5)
	Headcount (1)	Equivalent Service-Months (2)	Headcount (3)	Equivalent Service-Months (4)	
Instruction/Research Professionals					
Executive/Administrative/Managerial Professionals					
Specialist/Support Professionals					
Technical Employees					
Office/Clerical Employees					
Crafts/Trades Employees					
Service Employees					

tainly reduce the effectiveness of the institution's planning and management.

D. Summarizing Manpower Resource Information

By using the descriptive data items suggested in Section B of this chapter in conjunction with general categories of manpower resources, numerous data displays can be developed that are useful in support of the planning and management functions at various decision-making levels of postsecondary education. The most general, and probably most generally used, set of information is a summary of an institution's available manpower resources classified according to major categories of manpower resources such as those described in Section A—that is, data in the following general form of Format 1.

More detailed information about the Instruction/Research Professional category than that included in Format 1 is almost always necessary. Of particular importance is the delineation of the total number of Instruction/Research Professionals service-months by academic discipline or department as in Format 2.

FORMAT 1

Summary of Available Manpower Resources by Category of Resource

Manpower Resource Category	FULL-TIME EMPLOYEES		PART-TIME EMPLOYEES		Total Service-Months (2)+(4) = (5)
	Headcount (1)	Equivalent Service-Months (2)	Headcount (3)	Equivalent Service-Months (4)	
Instruction/Research Professionals					
Executive/Administrative/ Managerial Professionals					
Specialist/Support Professionals					
Technical Employees					
Office/Clerical Employees					
Crafts/Trades Employees					
Service Employees					

FORMAT 2

Distribution of Instruction/Research Professional Resources by Academic Discipline

Academic Discipline/Department	Number of Service-Months
0001 Agriculture 0002 . 0003 . 0004 . .	
Total Instruction/Research	*

**Should equal the entry in row 1, column 5, of Format 1.*

FORMAT 3

Distribution of Instruction/Research Professionals by Rank, Highest Degree Earned, and Tenure Status

	RANK						
	Professor	Associate Professor	Assistant Professor	Instructor/ Lecturer	Teaching or Research Assistant/Associate	Undesignated	Total
Highest Degree Earned Certificates and Diplomas (less than one year)							
Certificates and Diplomas (more than or equal to one year)							
Associate Degree (two years or more)							
Bachelor's Degree							
First Professional Degree							
Master's Degree							
Doctoral Degree							
Other (specify)							
Total							*
Tenure Status Tenured							
Non-tenured							
Not Eligible							

**Entries typically differentiated by full-time and part-time employees. Thus, this entry should conform to row 1, column 1 or 3, Format 1, depending on whether the data are related to full-time or part-time employees.*

FORMAT 4

Distribution of Manpower Resources by Race/Ethnic Identification and Sex Category

	RACE/ETHNIC IDENTIFICATION								SEX	
RESOURCE CATEGORY	White*	Black**	Hispanic	American Indian or Alaskan Native	Asian or Pacific Islander	Nonresident Aliens	All Other	Total***	Male	Female
Exempt Instruction/ Research										
Executive/ Administrative/ Managerial										
Specialist/ Support										
Nonexempt Technical										
Office/Clerical										
Crafts/Trades										
Service										

**Non-Hispanic in origin.*

***Non-Hispanic in origin.*

****Totals should equal entries in column 1 (for full-time) or column 3 (for part-time) from Format 1.*

In entering data into Format 2, the general process suggested by Format 1 is useful. That is, the number of Instruction/Research Professionals assigned full-time to each of the disciplines or departments is entered and the equivalent number of service-months is calculated or estimated. As a second step, the number of Instruction/Research Professionals assigned to the discipline or department on a part-time basis (either part-time employees or full-time employees with appointments in more than one department) is entered and the equivalent service-months entered. Format 2 can be constructed at varying levels of detail depending on the use; department by department data, data for each of the schools or colleges within the institution, or according to discipline categories identified in accordance with the *Taxonomy of Instructional Programs*. Generally speaking, the higher the level of data aggregation, the fewer the number of cases in which data about individuals will have to be prorated on some basis to two or more categories.

Information about rank, highest earned degrees, and tenure status of Instruction/Research Professionals, such as that suggested in Format 3, is also widely used. In most cases, such data are compiled for full-time and for part-time employees, but data are not entered in terms of FTEs or service-months. In that sense the data are more correctly descriptors of employees rather than of the resource they represent.

Finally, data about the sex and race/ethnic composition of an institution's employees are commonly required. Format 4 suggests one way of displaying such data. Again, the data are typically reported separately for full-time and part-time employees with no attempt made to report data using the more precise measures of manpower resources (FTEs or service-months).

There are many other ways in which these information items can be combined to provide insight into the nature of the pool of manpower resources available to an institution of post-secondary education. The particular formats most useful for arraying this information in a specific instance will be determined by the nature of the planning and management context and the decisions being addressed.

4

Describing the Allocation and Utilization of Manpower

As noted in Chapter 1, allocating manpower resources to institutional programs (developing the manpower budget) is one of the most important functions performed by managers in institutions of postsecondary education. In the course of the manpower budgeting process, directions are set and decisions are made that significantly affect the nature, quantity, and quality of the outcomes produced by the institution. And, although the allocation of manpower resources is an action of central importance to an institution, it is not common practice to make explicit the manpower budget, to monitor the utilization of manpower resources vis-a-vis this budget, and to note variations and otherwise analyze the budget as a basis for improving the allocation of manpower resources. When manpower budgets are made explicit, there is seldom any follow-through that could lead to better decisions in future time periods. For example, it is not uncommon for department chairmen to record at least the teaching assignments of faculty, if not the full range of their assignments, but it is much less common for department chairmen, after the fact, to go back and assess how much manpower resource was actually utilized in carrying out the assigned activities, and to use this information in improving the next cycle of assignments.

In short, while manpower budget and utilization data are potentially powerful management devices, they have not been incorporated to any significant extent into the planning and management processes in postsecondary education.

This *Manual* represents one attempt to suggest the data (and surrounding procedures) necessary to formalize the development of manpower budgeting and utilization data as a supportive basis for planning and management decision making. Section A of this chapter is devoted to describing the necessary steps in the development of a manpower resource budget and a format for displaying data about the allocation of these resources. Section B of the chapter deals with the procedures for acquiring data about *actual* use of manpower resources and entering these data into a format that allows comparison of *planned* versus *actual* resource use. Through this mechanism it is felt that postsecondary education planners and managers will obtain some of the same kinds of benefits that derive from the availability of finance budget and expenditure data—specifically, a way of periodically assessing the extent and reasons for deviation from their planned set of activities, of obtaining information that will suggest opportunities and need for "midcourse corrections," and of obtaining insights that will improve the manpower allocation decisions in subsequent time periods.

On the conviction that the focal point for the development and use of manpower budgets is at the departmental level and that effective use at other institutional levels must derive from a capability at that level, Sections A and B are written with the department being the unit of analysis. At the same time, it is recognized that data for the institution as a whole (particularly manpower utilization data) are required for institutional planning and for reporting to agencies external to the institution.

Because institution-wide information is not likely to be readily derivable from departmental data in the near future, however, a set of procedures and data formats designed specifically for use at the institutional level are also required. These form the content of Section C of this chapter.

A. Describing the Allocation of Manpower Resources

The process of budgeting or allocating manpower resources consists of three essential steps. First, the total amount of manpower resources of each type

to be available for allocation is determined (estimated). Second, the programs to which manpower resources are to be allocated are identified. Finally, the available resources are allocated to these programs in accordance with the decision maker's best judgment about the amount of each type of resource required to carry out the estimated or expected level of activity in each program. These three general steps apply regardless of the organizational levels within the institution at which the manpower budget is being developed and only the amount of detail needed will differ.

This section treats each of these steps in order. First, a means of describing the total amount of manpower resources available for allocation is presented. Second, a means of identifying and categorizing institutional programs to which the resources are to be allocated is suggested. Finally, procedures for recording the amounts of each type of manpower resource allocated to each type of institutional program are described. The net result is a manpower resource budget summarized according to the following general Format 5.

1. Determining Resources Available for Allocation. As noted previously, the first step in the manpower resource allocation process is that of determining the amounts of each type of manpower resource to be available during the period of time under consideration (that is, the development of an inventory of manpower resources). As described in Section C of Chapter 3, this step involves estimating the number of service-months of each of the categories of manpower resource to be available for allocation during the budget period.

The determination (or estimation) of the total amounts of each type of manpower resource available for allocation can be either very simple or very complex, depending on the personnel and employment practices of the institution. The more variation in appointment periods, the greater the proportion of part-time employees, and the greater the variation in "kinds" of employees (as defined by the resource categories to which they are appropriately assigned), the more difficult or complex is calculating resource availability.

Table 1 illustrates the information items necessary to calculate the number of service-months of each type of resource available for allocation during the fiscal year. The illustrative entries indicate the different levels of detail that might be dictated by differing employment practices.

One of the most useful tabulations of service-months likely will be on the basis of the twelve-month fiscal year, since that is the most common time measure used for the input and expenditure of other resources. For this reason, the illustrations all use the fiscal year. However, other time periods may, for some purposes, be of equal or greater use. An institution will, for example, want to know the staff input to the production of student credit hours or program completions during an instruction-related period such as a quarter, semester, or academic year. In such instances, because of the wide fluctuations of both input and output during the different academic periods (such as the fall term and the summer session), the tabulation of fiscal year will not be sufficiently detailed.

FORMAT 5

Planned Allocation of Manpower Resources to Programs

Manpower Resources Available for Allocation, by Category	Programs

Table 1. *Service-Months of Each Type of Manpower Resource Available.*

Organizational Unit: Physics Department **Period Covered:** _____

Resource Category* (1)	Name of Individual or Descriptor of Group of Employees (2)	Number of Individuals (3)	Appointment Period (in months) (4)	Workload Percent (5)	Service-Months (3)x(4)x(5) = (6)
Instruction/ Research Professionals	J. Brown (Academic Year)	1	9	1.00	9.0
	" " (Summer)	1	3	.50	1.5
	F. Owens	1	6	.50	3.0
	B. Franklin	1	12	1.00	12.0
	D. Gray	1	12	1.00	12.0
	J. Selby	1	9	.50	4.5
	R. Murphy	1	12	1.00	12.0
	L. Keller	1	9	1.00	9.0
	H. Pettit	1	10	1.00	10.0
	F. Morris	1	12	1.00	12.0
	K. Doer	1	12	1.00	12.0
	S. Cole	1	9	1.00	9.0
	" "		3	.50	1.5
	Graduate Assistants	7	9	.50	31.5
	SUBTOTAL FOR CATEGORY				139.0
Technical	Research Technicians	2	12	1.00	24.0
	Summer Assistants	4	3	1.00	12.0
	SUBTOTAL FOR CATEGORY				36.0
Office/ Clerical	Departmental Secretaries	3	12	1.00	36.0
	SUBTOTAL FOR CATEGORY				36.0

**Additional distinctions can be made here if deemed appropriate. For example, it may be appropriate to distinguish between "Graduate Assistants" and "All Other Faculty" within the Instruction/Research Professionals category.*

As indicated by the illustrative entries in Table 1, where appointment periods and workload percentages vary widely, the calculation of resource availability becomes almost an individual-by-individual calculation (as illustrated by the entries in the Instruction/Research Professionals category). On the other hand, where all individuals within a resource category have similar appointment periods and workload percentages, the service-months for that group of individuals can be determined through a single calculation (as illustrated by the entries in the Office/Clerical resource category). Between these two extremes lies the situation in which there are a limited number of employment arrangements that apply to all individuals in a resource category. In such circumstances, a calculation of each group of individuals having similar appointment periods is required (as illustrated by the entries in the Technical resource category in Table 1). When calculating resources for the institution as a whole or for a major subunit thereof (such as a college), it usually is necessary to deal with groups of employees and avoid individual-by-individual calculations.

The subtotals illustrated in Table 1 represent the total amount of each type of manpower resource available to the specified organizational unit for allocation in the fiscal year (or other period) under consideration. As such, they represent also the information to be entered in the first row of Format 5 on page 26.

2. Describing and Categorizing Programs. Having determined the amount of each type of manpower resource available for allocation, the next step is to describe the array of purposes to which

FORMAT 5

Planned Allocation of Manpower Resources to Programs

Manpower Resource	Service-Months Available	Programs		
Instruction/Research Professional	139.0*			
Executive/Administrative/Managerial Professional	-0-	—	—	—
Specialist/Support Professional	-0-	—	—	—
Technical	36.0*			
Office/Clerical	36.0*			
Crafts/Trades	-0-	—	—	—
Service	-0-	—	—	—

**From subtotals, Table 1—entries in service-months.*

these resources could be put. There undoubtedly are numerous ways of describing and categorizing these purposes. For a variety of reasons, they are defined in this document in terms of the current version of the NCHEMS Program Classification Structure (PCS). The PCS is basically a hierarchical structure, thus allowing description of those purposes to which resources might be allocated at whatever level of detail is most appropriate. Further, it is intended to be an exhaustive list of programs—thus, there should be a way of describing almost all programs of interest to an institution. Finally, it should also be used as a means of categorizing information on the allocation and use of those kinds of resources (specifically financial and facilities resources), thus providing a means for linking the manpower budget to, for example, the finance budget.

The Program Classification Structure identifies eight major programs as follows:

- Instruction
- Research
- Public Service
- Academic Support
- Student Service
- Institutional Support
- Independent Operations
- Student Access

Within each of these main programs, the PCS provides several additional levels of detail. The general structure of the PCS as described by programs and their respective subprograms is shown on page 27.

The definitions of the main programs are included in Appendix C. The NCHEMS Program Classification Structure has been revised to extend its applicability to users throughout postsecondary education. For a complete discussion of the revised NCHEMS Program Classification Structure, refer to the document titled *Program Classification Structure* (Second Edition), Technical Report Number 71, 1976.

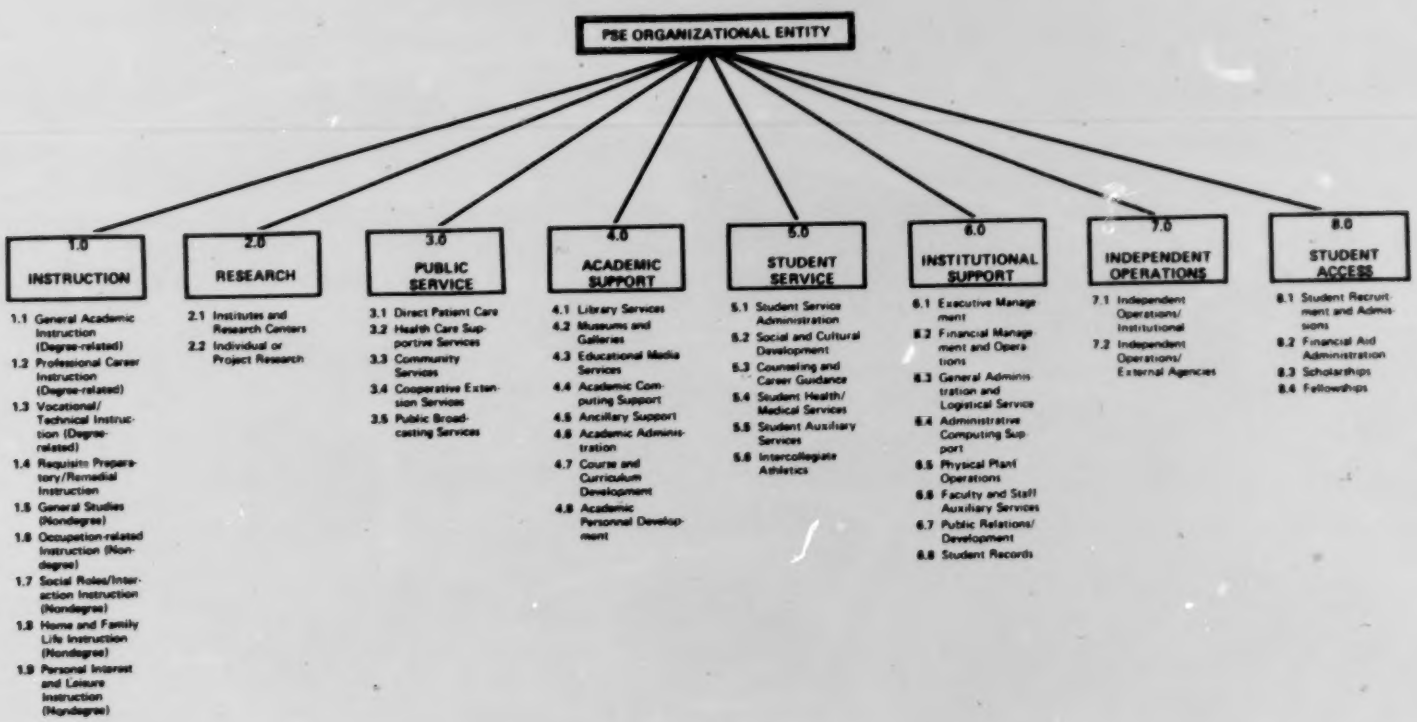
The format for describing the allocation of manpower resources that results when the Program Classification Structure is used as the means for categorizing programs is shown on page 28.

3. Recording Allocations of Manpower Resources to Institutional Programs. In any budgeting process, it is necessary to determine the resources available for allocation and to identify those programs or purposes to which these resources must be distributed. The most significant aspects of the resource allocation process, however, are reflected in the decisions that determine the specific amounts of each of the various types of available resources to be allocated to each program. The balance of this section is devoted to describing the procedures for recording the results of those decisions.

Again, the procedures to be described are patterned largely after the process itself. In some cases the allocations to programs may be almost automatic and the procedures for recording these allocations are direct and simple. In other cases, both the allocations and the associated descriptive procedures become much more complex, with the focus being placed on considerations of the assignment of specific individuals to specific programs.

In the simplest cases, all the manpower resources (or all the resources of a particular kind)

REVISED
PROGRAM CLASSIFICATION
STRUCTURE


PSE ORGANIZATIONAL ENTITY
1.0 INSTRUCTION
1.1 General Academic Instruction (Degree-related)
1.2 Professional Career Instruction (Degree-related)
1.3 Vocational/ Technical Instruction (Degree-related)
1.4 Requisite Preparatory/Remedial Instruction
1.5 General Studies (Nondegree)
1.6 Occupation-related Instruction (Nondegree)
1.7 Social Roles/Interaction Instruction (Nondegree)
1.8 Home and Family Life Instruction (Nondegree)
1.9 Personal Interest and Leisure Instruction (Nondegree)
2.0 RESEARCH
2.1 Institutes and Research Centers
2.2 Individual or Project Research
3.0 PUBLIC SERVICE
3.1 Direct Patient Care
3.2 Health Care Supportive Services
3.3 Community Services
3.4 Cooperative Extension Services
3.5 Public Broadcasting Services
4.0 ACADEMIC SUPPORT
4.1 Library Services
4.2 Museums and Galleries
4.3 Educational Media Services
4.4 Academic Computing Support
4.5 Ancillary Support
4.6 Academic Administration
4.7 Course and Curriculum Development
4.8 Academic Personnel Development
5.0 STUDENT SERVICE
5.1 Student Service Administration
5.2 Social and Cultural Development
5.3 Counseling and Career Guidance
5.4 Student Health/ Medical Services
5.5 Student Auxiliary Services
5.6 Intercollegiate Athletics
6.0 INSTITUTIONAL SUPPORT
6.1 Executive Management
6.2 Financial Management and Operations
6.3 General Administration and Logistical Service
6.4 Administrative Computing Support
6.5 Physical Plant Operations
6.6 Faculty and Staff Auxiliary Services
6.7 Public Relations/ Development
6.8 Student Records
7.0 INDEPENDENT OPERATIONS
7.1 Independent Operations/ Institutional
7.2 Independent Operations/ External Agencies
8.0 STUDENT ACCESS
8.1 Student Recruitment and Admissions
8.2 Financial Aid Administration
8.3 Scholarships
8.4 Fellowships

FORMAT 5

Manpower Resources Available for Allocation, by Category	Total	INSTITUTIONAL PROGRAMS*							
		1.0 Instruction	2.0 Research	3.0 Public Service	4.0 Academic Support	5.0 Student Service	6.0 Institutional Support	7.0 Independent Operations	8.0 Student Access
Instruction/Research Professionals	139.0								
Executive/Administrative/ Managerial Professionals	-0-	—	—	—	—	—	—	—	—
Specialist/Support Professionals	-0-	—	—	—	—	—	—	—	—
Technical	36.0*								
Office/Clerical	36.0*								
Crafts/Trades	-0-	—	—	—	—	—	—	—	—
Service	-0-	—	—	—	—	—	—	—	—

**Additional detail within the PCS should be used as necessary.*

available to the individual organizational unit within the institution are assigned to a single program. Referring to the illustration summarized in Format 5, if all the technical manpower resources (36.0 service-months) were to be allocated to a single program (for example, Research), both the allocation decisions and the recording thereof would be quite simple. Slightly more complex, but still relatively simple, are those situations in which manpower resources of a particular type are allocated to more than one program but in which the allocations are made by allocating all of certain individuals' time to selected programs. Again referring to the previous illustration, if clerical resources are to be allocated to instruction and research programs such that two of the individuals concerned are allocated to the instruction program and one individual to the research program, the allocations are reasonably easy to describe.

Probably most difficult are those situations in which both the resources within a particular category and the time of a single individual within that category are divided among multiple programs. This situation is most prevalent in (but is not limited to) the exempt categories, and particularly in the Instruction/Research Professionals category. In such cases, the decision maker concerned with the allocation of resources has two choices—either allocate the resources on the basis of some generally held criterion (¾ for instruction, ¼ for research) or resort to what amounts to an individual-by-individual allocation process. The selection of allocation procedures will be influenced, of course, by the degree to which budget/personnel/finance data and records are mechanized and linked. Thus, if the records can be called upon easily to display the division of staff time between the instruction and research budgets, for instance, an individual-by-individual allocation is feasible. Institutional operations demand that each individual be assigned to specific duties and programs; the only question is whether these specific assignments become a consideration in the planning and budgeting process or are not considered in detail until classes meet in the fall.

The following kind of worksheet can be used to record individual resource allocation decisions prior to summarization in a format such as that indicated by Format 5.

Such data can be summarized as shown in Table 3 below by aggregating the data in columns 4 and 5 from Table 2 for each category of manpower resource.

The data in Table 3 (or the data in Table 2 in greater detail) represent a budget of—a plan for the use of—the manpower resources in a single department. In the following section, procedures for acquiring data about the *actual* use of these resources will be described.

Table 2. *Allocation of Manpower Resources to Programs.*

Organizational Unit: Physics Department **Period Covered:** _____

Resource Category	Resource to be Allocated		Allocation		
	Description (1)	Amount* (2)	Program Name (3)	PCS Code** (4)	Amount* (5)
Technical Employees	All resources in Technical Employee Category	36.0	Nuclear Research	2.2.1904	36.0
Office/Clerical	Departmental Secretaries	36.0	Physics Inst.	1.1.1902	24.0
			Nuclear Research	2.2.1904	12.0
Instruction/ Research	J. Brown	10.5	Physics Inst.	1.1.1902	9.0
			Nuclear Research	2.2.1904	1.5
	F. Owens	3.0	Physics Inst.	1.1.1902	3.0
	B. Franklin	12.0	Physics Inst.	1.1.1902	6.0
			Student Counseling	5.3.0000	6.0
	D. Gray	12.0	Physics Inst.	1.1.1902	10.5
			Nuclear Research	2.2.1904	1.5
	J. Selby	4.5	Physics Inst.	1.1.1902	4.5
	R. Murphy	12.0	Physics Inst	1.1.1902	12.0
	L. Keller	9.0	Physics Inst.	1.1.1902	9.0
	H. Pettit	10.0	Physics Inst.	1.1.1902	10.0
	F. Morris	12.0	Physics Inst.	1.1.1902	3.0
			Molecular Research	2.2.1903	3.0
			Research Office	6.1.0000	6.0
	K. Doer	12.0	Physics Inst.	1.1.1902	9.0
			Molecular Research	2.2.1903	3.0
	S. Cole	10.5	Physics Inst.	1.1.1902	6.0
			Audiovisual Services	4.3.0000	4.5
	Graduate Assistants	31.5	Physics Inst.	1.1.1902	22.5
			Nuclear Research	2.2.1904	9.0

**Expressed in service-months.*
***Level of detail can be modified according to intended use of data.*

Table 3. *Summary: Allocations of Manpower Resources to Programs.*

Organizational Unit: Physics Department **Period Covered :** _____

Manpower Resources Available for Allocation, by Category	Institutional Programs*								
	Total	1.0 Instruction	2.0 Research	3.0 Public Service	4.0 Academic Support	5.0 Student Service	6.0 Institutional Support	7.0 Independent Operations	8.0 Student Access
Instruction/Research Professionals	139.0	104.5	18.0	—	4.5	6.0	6.0	—	—
Executive/Administrative/ Managerial Professionals	-0-	—	—	—	—	—	—	—	—
Specialist/Support Professionals	-0-	—	—	—	—	—	—	—	—
Technical	36.0	—	36.0	—	—	—	—	—	—
Office/Clerical	36.0	24.0	12.0	—	—	—	—	—	—
Crafts/Trades	-0-	—	—	—	—	—	—	—	—
Service	-0-	—	—	—	—	—	—	—	—

**Additional detail within the PCS should be used as necessary.*

B. Describing the Utilization of Manpower Resources

The discussion in Section A of this chapter dealt with the *allocation* or *budgeting* of manpower resources. Because of the focus on a future time period:

- the calculation of resource availability reflects expectation, and
- the allocation of resources to programs represents an a priori plan for resource utilization.

For a variety of reasons an organizational unit may not actually have available the amount of resources it expects to have. Similarly, the organizational unit may not actually utilize its resources in the way envisioned at the time the allocation plan is prepared—individuals may be ill for extended periods of time, expected funding for research may not be forthcoming, individuals may be promoted, and so forth. Some of the variation between the planned and actual allocations of resources will be the result of intervening decisions made in response to unforeseen problems or opportunities. Some deviation from the plan may result from "poor" planning—certain activities may just have required more resources than anticipated. Whatever the reason, it can be expected that the actual utilization of manpower resources will not be exactly the same as that envisioned prior to the beginning of the fiscal year.

For planning and management purposes within an institution of postsecondary education, it is extremely valuable to obtain information concerning the actual utilization of manpower resource "budget" developed prior to the fiscal year. Much can be learned from investigating the differences found between planned and actual. For example, such comparisons provide some basis for monitoring organizational adherence to the pursuit of agreed-upon objectives. To be sure, minimum deviation between manpower budgets and actual utilization of manpower resources does not ensure that an institution's objectives are being met. Wide discrepancies, however, do suggest the possibility of deviation from the objectives stated at the time the budget was prepared. If wide discrepancies, when more thoroughly investigated, reveal no departure from pursuit of stated objectives, a different kind of important information is obtained—information that can aid in improving the planning and budgeting process in the following cycle.

To obtain the maximum advantage from manpower data, therefore, it is necessary that data on the *actual* utilization of manpower resources as well as information on the allocation (the planned utilization) of these resources be made available. This requires (1) that data be available concerning the actual amount of each type of manpower resource utilized by the organization and (2) that data be acquired to describe the actual utilization of these resources within the various programs.

1. Determining Resources Actually Utilized. The process for determining actual amounts of manpower resources utilized by an institution or department during a specified (past) period of time is directly analogous to the process described in Section A of this chapter for calculating resources expected to be available for allocation (in a future time period). While a calculation of expected resource availability is based on estimates of the future, the determination of actual amounts of resources utilized can be based on data available in institutional records. Thus, the determination of resources utilized becomes a matter of compiling and analyzing available data rather than of estimation or projection.

To determine the actual amount of each type of manpower resource utilized over a period of time, it is necessary to ascertain:

a. The individuals employed during that period of time.
b. The institutional manpower resource category for each of these individuals.
c. The number of service-months for each individual.

Again, the actual procedures to be followed in compiling this information may vary from institution to institution, depending largely on the records available. In some institutions, the payroll and employment records may be sufficiently complete to yield these data directly with very little, if any, additional analysis being required. At other institutions, obtaining the data may require considerable additional effort. In almost all cases, however, it is anticipated that sufficient information to

identify the individuals employed during the period of time under consideration and to indicate the amount of time they were employed can be obtained from payroll records, personnel records, or from employee contracts (the latter for Instruction/Research Professionals). The assignment of employees to manpower resource categories should be available from similar sources. In the absence of all other sources of information, department chairmen and heads of other organizational units can be asked to provide the missing information. At the most detailed level, the requirement is for completion of a format such as that illustrated in Table 1, with entries in the form being actual, rather than estimated or expected, data.

Regardless of the procedures followed, the objective should be to determine the actual amount of each type of manpower resource utilized by the department for the time period under consideration. Because these data have uses that require their comparison with data about manpower resource "budgets" for the same period of time, it is appropriate to display actual data in the same format.

2. Describing the Resources Utilized by Each Program. A complete picture of manpower resource utilization requires a determination of both the amounts of manpower resources actually utilized and their distribution to the various programs within the organizational unit. That is, there is the need to acquire information of the kind shown in Table 3, with entries reflecting actual, rather than planned, utilization of the resources.

While the data required to calculate the resources actually available and utilized typically are obtainable from institutional records (or are otherwise quite readily derivable), information about the actual distribution of these resources to programs almost always must be specially prepared. In some institutions, accounting records are detailed enough to provide these data, but such cases are clearly in the minority. To obtain this information, some form of special data acquisition effort almost always is required. This effort is typically one of two varieties—the department head may be asked to describe how the resources available to him or her were employed, or the individual employees may be asked to report how they used their time. In the first case, the department head might provide information in a general form like that suggested by Table 4.

The entries of this kind clearly are estimates based on the department heads' knowledge of how individuals used their time.

FORMAT 5

(Showing Service-Months of Each Type of Manpower Resource Utilized)

Organizational Unit: _____ *Period Covered:* _____

Manpower Resource Categories	Total Utilized by Category*	PROGRAMS*							
		1.0 Instruction	2.0 Research	3.0 Public Service	4.0 Academic Support	5.0 Student Service	6.0 Institutional Support	7.0 Independent Operations	8.0 Student Access
Instruction/Research Professionals									
Executive/Administrative/ Managerial Professionals									
Specialist/Support Professionals									
Technical									
Office/Clerical									
Crafts/Trades									
Service									

**Entries in service-months.*

Table 4. *Utilization of Manpower Resources by Programs.*

Organizational Unit: Physics Department **Period Covered:** _____

Resource Category	Resources Utilized		Distribution		
	Description (1)	Amount* (2)	Program Name (3)	PCS Code** (4)	Amount* (5)
Technical Employees	All resources in Technical Employee Category	36.0	Nuclear Research	2.2.1904	36.0
Office/Clerical	Departmental Secretaries	36.0	Physics Inst. Nuclear Research	1.1.1902 2.2.1904	21.0 15.0
Instruction/Research Professionals	J. Brown . . .	9.0	Physics Inst. . . .	1.1.1902	9.0
	Etc.		Etc.		

*Expressed in service-months.
**Level of detail can be modified according to intended use of data.

If individuals are asked to report how they used their time, some more formal mechanism generally is required. One possibility is self-reporting through use of a so-called faculty activity report. Such reports require that individual faculty members report the number of hours per week (or percent of time) they devote to different kinds of activities and to different institutional programs. These individual reports yield data that can be summarized in a format such as that suggested by Format 6 which follows. Procedures and forms for conducting faculty activity analyses have been developed by many institutions and agencies. One such set of forms and procedures that is particularly appropriate for acquiring information about the utilization of manpower resources by institutional programs has been developed by NCHEMS and is described in a publication entitled *Faculty Activity Analysis: Procedures Manual.** It should be noted that these more elaborate procedures for acquiring manpower resource utilization data pertain primarily to Instruction/Research Professionals. While it is necessary to acquire similar information for other categories of manpower resources, the procedures normally used will be much less complex.

Regardless of the procedures followed for acquiring these data, they should be displayed in a format similar to Table 3 to facilitate comparison of information about planned and actual resource utilization.

C. Summary Information About Resource Utilization

The previous section dealt with utilization of manpower resources from the perspective of the department chairman or other institutional administrator who requires detailed information. For many purposes, particularly for reporting to external agencies, summary information is required. In almost all such cases, the emphasis is on *actual* utilization of manpower resources rather than on the assignment of those resources; any comparisons of data are relative to utilization in previous time periods. The data collected are very similar to those described in the previous section, the primary difference being that they are collected from the institution as a whole rather than for a unit within the institution. Because most institutions are not yet in a position to generate institution-wide data by aggregating data from individual units, this section has been added to suggest ways of generating summary information for the institution directly.

There are two general kinds of summary data about manpower resource utilization that tend to be collected on a more or less regular basis. First, there are very general questions about the utiliza-

*Leonard Romney, 1973.

tion of all manpower resources available to an institution. More specifically, data are collected about amounts of each major category of manpower resource available to an institution and the distribution of those resources to institutional programs. Second, more detailed data are collected about Instruction/Research Professionals. In this case, questions of distribution of Instruction/Research Professional resources to disciplines or fields of study and to institutional programs are most prevalent. The balance of this section is devoted to a presentation of the types of formats most frequently used in conjunction with developing summary information about manpower resources for reporting to external agencies and to a brief description of some of the procedures for entering data into these formats.

1. Summary Information About All Manpower Resources. Format 6 below represents one way of presenting highly summarized information about the utilization of an institution's manpower resources. Even more highly summarized information can be achieved by combining information about Technical, Office/Clerical, Crafts and Trades, and Service manpower resources into a single figure representing all nonexempt employees.

The procedures for developing the data to be entered into this format consist essentially of two steps; first, the calculation of the amount of manpower resources of each category utilized (filling in the first column of the format), and, second, distributing these totals for each category across institutional programs. The process for estimating the amount of resources of each category utilized during a year is very much as described in Chapter 3; that is:

a. All employees of the institution are categorized into one (and only one) of the manpower resource categories.
b. Within each category, employees are differentiated as being either full-time or part-time employees.
c. The amount of manpower resource in each category is calculated (measured either in terms of FTEs or, as suggested in the *Manual*, in service-months). Most institutions are not yet in a position to perform this calculation on an individual-by-individual basis. A generally acceptable procedure calls for assuming all full-time employees in a given category represent a similar amount of manpower resources (1 FTE, 9 or 12 service-months, for example) and, likewise for all part-time employees (.33 or .50 FTE, 3, 4, or 6 service-months). The particular value selected depends on institutional practice.

The process for estimating and reporting the distribution of each category of manpower resources across institutional programs typically is relatively more difficult. Available records are too seldom directly supportive of this process. As a result, institutions generally must estimate and piece together data of various kinds to arrive at an estimated distribution of manpower resources to programs. Since most nonacademic departments can be linked to a single institutional program (physical plant and purchasing to Program 6.0, Institutional Support; library to 4.0, Academic Support; and so forth), it is possible to identify quite readily all departments contributing to each program, calculate the manpower resources available to those departments, and enter that

FORMAT 6

Summary of Manpower Resource Utilization by Institutional Program

Manpower Resource Categories	Total Available Category	INSTITUTIONAL PROGRAMS							
		1.0 Instruction	2.0 Research	3.0 Public Service	4.0 Academic Support	5.0 Student Service	6.0 Institutional Support	7.0 Independent Operations	8.0 Student Access
Executive/Administrative Managerial									
Instruction/Research Specialist/Support									
Technical									

data in the appropriate rows and columns. In other departments (typically the academic departments), the one-to-one relationship between departments and programs is much less likely to hold. In such cases a means for estimating distribution of manpower resources is required. In those institutions where faculty activity analyses are regularly conducted, the data collected in that process provide an excellent basis. In the absence of such data, a distribution of manpower resources on the basis of financial expenditure data is common (if academic department expenditures are 80 percent for instruction and 20 percent for research, the manpower resource utilization is assumed to be the same).

2. Summary Information about Utilization of Instruction/Research Professional Resources. In addition to summary information about the utilization of all manpower resources, there are recurring requests for additional information about utilization of Instruction/Research Professional resources. These requests most commonly take the general form of Format 7.

In this case, the process for entering data into this format is a three-step process. First, the total amount of Instruction/Research Professional manpower resources utilized is calculated. Second, a distribution of those resources to disciplines is made. Finally, a distribution of the total resources available in disciplines to functions or programs is made. Finally, a distribution of the total Instruction/Research Professional resources utilized during the period are the same as those described in conjunction with the previous format (in fact, the sum of column 1 in Format 7 should be the same as the sum of row 2 in Format 6). The distribution of these resources to disciplines is seldom straightforward. The preferable procedure would call for the manpower resources available to each department to be calculated with the resources represented by individuals holding multiple appointments being distributed to more than one department. In many institutions, this procedure is not feasible, the optional procedure then being one based on data derived from payroll systems; that is, individual-by-individual assignments to disciplines are made (and promotions calculated) on the basis of data for a particular payroll period.

Again, the distribution of resources to functions or programs tends to be the most difficult step. If faculty activity analysis data are available, they are a preferable basis for making this distribution. If not, the distribution can be made on the basis of either expenditure data as described above or on the basis of estimates of the distribution provided by department chairmen. Both of these estimating techniques are commonly in use.

3. Summary. A brief description of procecures that can be used in developing data for reporting manpower resource information to external agencies has been presented in Section C of this chapter. In preparing this section, an attempt has been made to recognize the current data limitations of most institutions and to suggest certain estimating procedures that can be used to overcome these data deficiencies. It is anticipated that, as the concepts included in this *Manual* become more widely accepted and used, more data for reporting purposes will be available directly from information systems and less estimation will be required.

FORMAT 7

Utilization of Instruction/Research Professional Resources by Discipline and Function (Program)

		Functions (Programs)		
Discipline	Total Resources Available	Instruction	Research	All Other
0100 Agriculture 0200 . 0300 . 0400 . *etc.*				
TOTAL				

5

Managing the Manpower Resource

(Describing Assignments and Activities)

Two previous chapters of this document dealt with describing manpower resources available to an institution and with describing the allocation of these resources to institutional programs. For purposes of describing the general resource picture at the institution and conveying this picture to external audiences, the definitions and display formats presented in these previous chapters probably are sufficient. For purposes of institutional or departmental management, the information items suggested in these chapters are fundamental, and necessary, points of departure. While necessary, these data items are not sufficient to support the planning and management functions within the institution. To actually allocate manpower resource and monitor their utilization at least enough to ensure efficiency and effectiveness of operation at the intra-institutional level, it is necessary to go one step beyond the point previously described—the next step being to identify the specific activities to which individuals in the various manpower resource categories have been assigned.

By following the procedures described in the previous chapters, information is obtained concerning the amounts of each category of manpower resource allocated to, or utilized by, each of the various institutional programs. For example, it is possible to describe the amount of Instruction/Research Professional manpower used by the Instruction programs (the entry in the shaded area in the following table).

At the intra-institutional level, however, it is not sufficient to deal at this level of generality. In making faculty assignments, the department chairman does not assign Professor X to the Instruction program; rather Professor X is assigned to teach a particular course, to carry out academic program advising activities, or to develop a new curriculum. It is at this more specific level that manpower resources are allocated within the institution; it is at this more detailed level that information about the actual utilization of manpower resources must be made available if it is to be of use in improving the resource allocation process within an institution or a department. Only by understanding, in some detail, the ways in which manpower resources actually are being used can the department chairman or other institutional administrator make adjustments that will result in improvements in manpower resource efficiency or effectiveness. For example, if it were discovered that *all* of the faculty time devoted to the Instruction program

Manpower Resources Available for Allocation, by Category	INSTITUTIONAL PROGRAMS*								
	Total	1.0 Instruction	2.0 Research	3.0 Public Service	4.0 Acad. Support	5.0 Stud. Service	6.0 Inst. Support	7.0 Indep. Oper.	8.0 Student Access
Instruction/Research Professionals									
Executive/Administrative/Managerial Professionals									
Specialist/Support Professionals									
Technical									
Office/Clerical									
Crafts/Trades									
Service									

**Additional detail within the PCS should be utilized as necessary.*

was devoted to scheduled teaching activities with none being devoted to academic advising or curriculum development, the department chairman should question whether some diversity of instructional activities ought not to be fostered. Similarly, if it were discovered that technicians were spending significant portions of their time teaching courses or advising students, the institutional administrator should be concerned with the way in which these activities are being conducted.

Again, when recording information about the allocation and utilization of manpower resources at this level of detail, the two guidelines mentioned earlier in this document should be followed. First, those data on allocations of manpower (planned utilization) and those on actual utilization should be recorded in similar formats. Only if the "before" and "after" data can be compared and the differences identified can these data be of real use in improving the resource allocation process at the intra-institutional level. Second, the methods and formats for recording this information should be designed in such a way that they parallel the decision-making process as much as possible. This latter point has several important implications. At this level of detail it is necessary to be concerned with all three dimensions of the problem—the amount of each type of manpower resource available for allocation, the specific activities to which each individual is to be assigned, and the institutional programs to which this activity is intended to contribute. In practice, decision making at the departmental level proceeds in the general order suggested above, that is, from resource determination, to activity assignment, to concern with institutional programs. At this point, it should be noted that this ordering does not imply that concern with programs is of third-order consequence. In many cases there is a one-to-one correspondence between activities to be performed and the programs to which these activities are intended to contribute. For example, it usually is quite clear that when a faculty member is assigned to teach a course or to perform curriculum development activities that these activities are intended to contribute to the Instruction program. There are cases, however, where this relationship is not so direct, such as with clerical employees. In such cases the employees generally are assigned to activities that are almost synonymous with the resource category (in the case of clerical employees, clerical activities) and the major concern then becomes one of identifying the institutional programs to which such activities contribute.

One significant difference—in addition to level of detail—becomes apparent when attention is focused on "activities" rather than on resource amounts and program-level distinctions: it is necessary to treat each manpower resource category separately since the types of activities performed by these different groups of people are so different. It is not productive to consider the full range of possible activities when considering the allocation or utilization of individual categories of manpower resources—for example, the list of activities to which faculty members might be assigned need not include such distinctions as "typing," "sweeping floors," and so forth.

On the basis of the previous discussion, it is possible to suggest appropriate procedures and formats for recording detailed information concerning the allocation and utilization of manpower resources.

Step 1. Ascertain the amount of each category of manpower resource available. The procedures and formats appropriate for this step are the same as those described in Chapter 3. Because assignments to activities typically are made on an individual-by-individual basis, descriptions of available manpower resources should be on this same basis for departmental use. The result of the first step in this process is an estimate of the manpower resource, by category, available for allocation by the department or other organizational unit under consideration. These results can be summarized in a format such as Table 1, which is repeated on the next page.

Step 2. Assign manpower resources to activities. When making assignments of manpower resources to activities at the departmental level, there is no way to avoid the necessity of going through each manpower resource category, individual by individual, and assigning each person to a set of specific activities (Professor X assigned to teach courses Physics 101, Physics 408, and so forth) or to a role that implies a specific set of activities (Professor Y assigned to serve as Asso-

Table 1. *Service-Months of Each Type of Manpower Resource Available.*

Organizational Unit: Physics Department **Period Covered:** _____

Resource Category* (1)	Name of Individual or Descriptor of Group of Employees (2)	Number of Individuals (3)	Appointment Period (in months) (4)	Workload Percent (5)	Service-Months (3)x(4)x(5) = (6)
Instruction/ Research Professionals	J. Brown (Academic Year)	1	9	1.00	9.0
	" " (Summer)	1	3	.50	1.5
	F. Owens	1	6	.50	3.0
	B. Franklin	1	12	1.00	12.0
	D. Gray	1	12	1.00	12.0
	J. Selby	1	9	.50	4.5
	R. Murphy	1	12	1.00	12.0
	L. Keller	1	9	1.00	9.0
	H. Pettit	1	10	1.00	10.0
	F. Morris	1	12	1.00	12.0
	K. Doer	1	12	1.00	12.0
	S. Cole	1	9	1.00	9.0
	" "		3	.50	1.5
	Graduate Assistants	7	9	.50	31.5
	SUBTOTAL FOR CATEGORY				139.0
Technical	Research Technicians	2	12	1.00	24.0
	Summer Assistants	4	3	1.00	12.0
	SUBTOTAL FOR CATEGORY				36.0
Office/ Clerical	Departmental Secretaries	3	12	1.00	36.0
	SUBTOTAL FOR CATEGORY				36.0

**Additional distinctions can be made here if deemed appropriate. For example, it may be appropriate to distinguish between "Graduate Assistant" and "All Other Faculty" within the Instruction/Research Professionals category.*

ciate Dean of the Graduate School). In short, the starting point in the manpower resource allocation process at this level of detail is almost inevitably an individual-by-individual summary of assignments to specific activities. While seldom recorded so formally, the result is similar to that shown in the following formats.

While it is necessary to start this process with an individual-by-individual assignment to activities, there are many reasons for having a department summary of the assignments of all individuals in each manpower resource category. And to make this summary, it is necessary to have a more-or-less standard set of activity categories to which individual assignments can be related. For most manpower resource categories no such list of activity categories has been developed (for example, there exists no generic list of activities typically performed by Executive/Administrative/Managerial Professionals that can serve this purpose). For some manpower resource categories (for example, clerical employees), it is possible that no such subdivision is appropriate. For Instruction/Research Professionals, however, such a list has been developed and can be used to summarize this information according to Format 10.

Until more detailed categories of activities for the other manpower resource categories are devised (or when it is decided that no such subdivision is warranted), the summaries for the other categories would be single line entries, as in Format 11.

The utility of developing activity categories for other manpower resource categories is an open question, one deserving further discussion and consideration.

FORMAT 8

Individual Assignment Record

Name: _____

Resource Category: Instruction/Research Professionals

Total Service-Months Available: 12

Fall Term: Service-Months for Period 4.5

	Percent	Service-Months
Phy 101	25	1.1
Phy 408	25	1.1
Research	50	2.3

Spring Term: Service-Months for Period 4.5

	Percent	Service-Months
Phy 102	25	1.1
Phy 309	25	1.1
Phy 409	25	1.1
Research	25	1.2

Summer Term: Service-Months for Period 3

	Percent	Service-Months
Research	100	3.0

FORMAT 9

Individual Assignment Record

Name: _____

Resource Category: Office/Clerical

Fiscal Year: Service-Months Available 12

Activities	Percent	Service-Months
Clerical	100	12

Step 3. Allocations to institutional programs. As indicated previously, the relationship between specific activities and the institutional programs to which they are intended to contribute often is very direct. In such cases, the determination of allocation of resources to programs at the departmental level is a trivial problem. In other cases, this one-to-one relationship does not exist and the allocation of manpower resources to institutional programs becomes an integral part of the resource allocation process (for example, the allocation of Office/Clerical manpower resources goes beyond assignment to specific activities such as typing, and must consider also institutional programs, such as typing to support the Instruction or Research programs, and so forth). Whether a natural consequence of assignment to activities or whether an integral part of the allocation decision, the programmatic consequences of manpower resource allocation decisions are extremely important and should be a specific consideration during the allocation process. Thus, Formats 8 and 9 should be augmented to reflect such considerations.

In reality, assignments to both activities and programs would be accomplished simultaneously so that in practice Formats 12 and 13 would be used rather than Formats 8 and 9.

FORMAT 10

Summary of Instruction/Research Professional Assignments

Organizational Unit: _____

Period Covered: _____

Activity*	Service-Months for Period	
Scheduled Teaching		
Unscheduled Teaching		
Academic Program Advising		
Course and Curriculum Research and Development		
Research, Scholarship, and Creative Work Activities		
Student-Oriented Service		
Administrative Duties		
Committee Participation		
Professional Service/Advice Directed Outside the Institution		
Total**		

*See *Faculty Activity Analysis: Procedures Manual* for details and definition.

**Should agree with the total for the manpower resource category shown on Table 1.

FORMAT 11

Summary of _____ Assignments

Organizational Unit: _____

Period Covered: _____

Activity	Service-Months for Period*
All activity categories	

*Should agree with the total for the manpower resource category shown on Table 1.

The departmental summary of all the manpower resource allocation decisions might take the form shown in Format 14.

It should be noted that Format 14 contains basically the same information as Table 3, the only difference being the added detail concerning the allocation of the Instruction/Research Professional manpower resources. The end point has been arrived at in this case through a very detailed process, the results of which have been aggregated into a department summary. In the previous case, the result was obtained by calculating the available resources and estimating distribution to programs.

The above discussion has dealt solely with the allocation, or budgeting, of manpower resources. As has been noted several times throughout this document, such information has its greatest usefulness if it can be coupled with information about the actual utilization of these resources. Such information can be acquired in two ways. First, the department chairman can, after the fact, estimate the actual utilization of the individual in each of the manpower resource categories. In such cases, it again almost necessitates an individual-by-individual assessment of activities actually performed, although for some categories a group of employees

FORMAT 12

Individual Assignment Record

Name: _____

Resource Category: Instruction/Research Professionals

Total Service-Months Available: 12

Fall Term: Service-Months for Period: 4

Assignments	Percent Assignment	Equivalent Service-Months	Contributions to Programs 1.0 Inst.	2.0 Res.	3.0 .. 8.0
Phys 101	25	1	100%		
Phys 408	25	1	100%		
Research	50	2	25%	75%	

Spring Term: Service-Months for Period 4

Assignments	Percent Assignment	Equivalent Service-Months	Contributions to Programs 1.0 Inst.	2.0 Res.	3.0 .. 8.0
Phys 102	25	1	100%		
Phys 309	25	1	100%		
Phys 409	25	1	100%		
Research	25	1	50%	50%	

Summer Term: Service-Months for Period: 4

Assignments	Percent Assignment	Equivalent Service-Months	Contributions to Programs 1.0 Inst.	2.0 Res.	3.0 .. 8.0
Research	100%	4	25%	75%	

FORMAT 13

Individual Assignment Record

Name: _____

Resource Category: Office/Clerical

Fiscal Year: Service-Months Available 12

Activities	Service-Months	1.0 Inst.	2.0 Res.	3.0 P.S.	4.0	5.0	6.0	7.0	8.0
Clerical	12	50%	50%						

can be treated together. Second, the employees themselves can be asked to provide information about the way they utilized their time. This kind of procedure is widely used for faculty members; historically, it seldom has been used for other categories of manpower resources. Using either approach, the final result should be information of the type indicated in Format 14, with the entries representing actual utilization rather than planned utilization. Formats 12 and 13 represent the *general* form of the information to be acquired for each individual, which then is summarized into Format 14.

FORMAT 14

Manpower Resource Allocations FY _____

Organizational Unit: _____

Resource Categories And Activities	*Total Service-Months*	PROGRAMS							
		1.0 Inst.	*2.0 Res.*	*3.0 Public Service*	*4.0 Academic Support*	*5.0 Student Service*	*6.0 Inst. Support*	*7.0 Indep. Operation*	*8.0 Student Access*
Instruction/Research Professionals									
Scheduled Teaching									
Unscheduled Teaching									
Academic Program Advising									
Course and Curriculum Research and Development									
Research, Scholarship, and Creative Work Activities									
Student-Oriented Service									
Administrative Duties									
Committee Participation									
Professional Service/Advice Directed Outside Institution									
Executive/Administrative/Managerial Professionals									
All Activities									
Specialist/Support Professionals									
All Activities									
Technical Employees									
All Activities									
Office/Clerical Employees									
All Activities									
Crafts/Trades Employees									
All Activities									
Service Employees									
All Activities									

Appendices

Appendix A

Institutional Manpower Resource Subclassifications and Detailed Definitions

A more detailed discussion of the seven institutional classifications of employees, with subcategories appropriate to each, are as follows:

1.0 Executive/Administrative/Managerial Professionals

This classification includes employees who exercise primary responsibility for the management of the institution, or of a customarily recognized department or subdivision thereof, *and* who devote no more than 20 percent of their workweek to Fair Labor Standards Act (FLSA) nonexempt work. Assignments may require the performance of work directly related to management policies or general business operations of the institution or the performance of functions in the administration of a department or subdivision thereof directly related to academic instruction. This category conventionally will include employees with such job titles as president, controller, dean, director, assistant to the president, assistant dean, assistant director, coordinator. It may not include the head, chairman, or other administrative assignee within a department or similar unit unless such person is primarily an administrator exercising specific administrative authority while other activities are secondary. It is assumed that assignments in this category customarily and regularly require the incumbent to exercise discretion and independent judgment, and to direct the work of others.

Subcategories of the Executive/Administrative/Managerial Professionals category:

1.1 Assignment at this top level requires reporting either to the top executive officer or to the governing board for the operation of a system, or institution, or for a principal phase or portion of the institutional operation.

1.2 Assignment requires the administration of a group of programs or a major operational unit, normally reporting to an officer holding a top executive appointment.

1.3 Assignment requires the administration of an operational unit or program, or shares responsibility for a major unit with an administrator at a higher level.

1.4 Assignment requires administrative support, above the clerical level, to a manager at a higher level, engages directly in specific administrative activities within a unit or subdivision, or has firstline supervisory responsibilities.

2.0 Instruction/Research Professionals

Employees in this classification customarily receive assignments for the purpose of instruction and/or research, with a combination of those activities being the most common situation. It must be borne in mind that these classifications derive from the institution's perception of the employee, but such perceptions are reflected most accurately in the assignments that the institution gives. Thus, a President or Vice-President of the institution, or the Dean of a College, even though they may carry also the title of Professor, are not members of the Instruction/Research Professionals classification unless they normally spend 50 percent or more of their time in instruction and research activities. The term "faculty" is advisedly not used in a determining or definitive sense to describe this activity because that term has no universal or agreed-upon meaning for staff group coverage among institutions of postsecondary education. While the traditional faculty titles are used in the subcategories because they do make some contribution to understanding, they are used reluctantly. This reluctance derives from the knowledge that these terms, too, have lost universality of meaning if, indeed, they ever had it. These titles appear also in the main body of this *Manual*, to contribute to the definitions. The following discussion permits classification of undesignated rank staff, researchers, visiting scholars, and so forth on a single scale.

2.1 Senior Instruction/Research—Assignment and classification at this top level implies a full level and scope of academic and scholarly responsibility and experience in the professional field. The institution expects leadership in some aspect(s) of academic and scholarly performance, such as curriculum development, excellence in teaching, development of knowledge and other contributions to the academic field. Most commonly, assignment and classification at this level may be associated with such titles as professor and associate professor.

2.2 Junior Instruction/Research—Assignment and classification at this next level implies professional responsibi-

lity and experience at any entry or intermediate level, with a considerable latitude of independence in the performance of assignments, but with limitations on the freedom to select and structure those assignments. Most commonly, assignment and classification at this level may be associated with such titles as assistant professor and instructor.

2.3 Graduate Student—Assignment and classification at this level implies that personnel in this category perform with guidance from others exercising primary responsibility. The category typically is staffed by people with student status at the employing institution and may be associated with such titles as teaching associate, teaching assistant, teaching fellow, and so forth.

3.0 Specialist/Support Professionals

This category has a number of features in common with the previous two classifications of Executive/Administrative/Managerial Professionals and Instruction/Research Professionals. Persons in these three categories conventionally are drawn from the same or similar education, training, experience and vocational backgrounds. Typically there is some intercategory mobility among these three categories, and all three (and only these three) are in the Fair Labor Standards Act exempt category. It is common for persons classified and assigned in this occupational category to have secondary or permanent occupational titles derived from the Instruction/Research Professionals category, or to be lumped with the previous two classifications in a group called "academic." This category includes persons given assignments requiring knowledge of an advanced type in a field of science or learning, or original and creative work in an artistic field, and no more than 20 percent of the workweek is devoted to FLSA nonexempt work. This category includes such employees as pathologists, pharmacists, attorneys, librarians, accountants, architects, systems analysts, psychologists, counselors, and so forth, employed for the primary purposes of performing or operating in the areas of academic support, student services, and institutional support, but excluding individuals who have executive or managerial (supervisory) responsibilities in these areas.

A useful set of subcategories in the classification may be derived from the educational qualifications conventionally required at different levels.

3.1 The advanced level assignment and classification would require that the incumbent normally would have attained a doctoral degree or equivalent.

3.2 The intermediate level assignment and classification would require that the incumbent normally would have attained a master's degree or equivalent.

3.3 The entry level assignment and classification would require that the incumbent normally would have attained a bachelor's degree or equivalent.

4.0 Technical Employees

This classification and assignment includes employees who exercise specialized knowledge and skills of the type that normally are acquired in postsecondary educational programs that do not lead to a bachelor's degree but do lead to a recognition of completion of a planned and sequential program. Such technical staff may be computer operators, dental assistants, photographers, draftsmen, position classification specialists, airplane pilots, practical nurses, occupational therapists, ornamental horticulturists, engineering technologists, and so forth. While these skills normally are acquired in formal postsecondary educational programs, incumbents may have acquired them through experience also.

Subcategories in this classification are indicated for institutional convenience only. Interinstitutional comparison and reporting by subdivisions in this classification does not seem warranted, given the present-day state of the art of classification, because manpower markets and characteristics are predominantly localized. Standard definitions may be developed in the future as demand indicates the need and as more is learned about this manpower category in postsecondary education institutions. For its own purposes the institution may distinguish:

4.1 Advanced classification and assignments

4.2 Intermediate classification and assignments

4.3 Entry classification and assignments.

5.0 Office/Clerical Employees

This classification includes employees who perform clerical and secretarial duties in offices or other locations in which one customarily finds clerical staff. This includes secretaries, typists, bookkeepers, file clerks, inventory clerks, and so forth, and they may be found in offices, warehouses, motor pools, laboratories, and so forth. Subcategories in this classification are indicated for institutional convenience only. Interinstitutional comparison and reporting by subdivisions in this classification does not seem warranted, given the present-day state of the art of classification, because manpower markets and characteristics are predominantly localized. Standard definitions may be developed in the future as demand indicates the need and as more is learned about this manpower category in postsecondary education institutions. For its own purposes the institution may distinguish:

5.1 Advanced classification and assignments

5.2 Intermediate classification and assignments

5.3 Entry classification and assignments.

6.0 Crafts and Trades Employees

This classification includes employees who perform manually skilled activities in a craft or trade, including air conditioning installers, appliance repair men, auto mechanics, carpenters, electricians, roofers, painters, plumbers, and so forth. Persons so employed may have derived their skills from trade or vocational schools, or may have served (or be serving) apprenticeships. Interinstitutional comparison and reporting by subdivisions in this classification does not seem warranted, given the present-day state of the art of classification, because manpower markets and characteristics are predominantly localized. This localization of conditions is particularly reflected in the regional variations in trade union activities and arrangements. For its own purposes the institution may distinguish:

6.1 Advanced classification and assignments. For some trades, this may correspond to the trade's own classification as "master."

6.2 Intermediate classification and assignments. This may correspond to the trade's own classification as "journeyman."

6.3 Entry classification and assignments. This may correspond to the trade's own classification as "apprentice."

7.0 Service Employees

This classification includes employees assigned to activities requiring only a limited amount of previously acquired skills and knowledge. It includes such employees as custodians, groundskeepers, security guards, food service workers, drivers, messengers, and so forth. It is true particularly with respect to this classification that interinstitutional comparisons or other reporting of anything but aggregate data from this category does not seem warranted in this *Manual*, given the state of the art of classification and the extreme localization of the manpower markets and characteristics. For the institution's own convenience, and for its own purposes, such as salary schedules, the institution may distinguish:

7.1 Advanced classification and assignments

7.2 Intermediate classification and assignments

7.3 Entry classification and assignments.

Appendix B

Compensation Survey Titles

Compensation Survey Titles are job titles surveyed periodically by the College and University Personnel Association, the American Association of University Professors, the National Education Association, the National Center for Education Statistics, and a number of other agencies. Titles typically surveyed by these agencies have been included in the coding structure as a convenience to the institution. It should be emphasized, however, that titles are not to be considered in classifying employees for manpower accounting.

These codes will be utilized in the Higher Education General Information Survey (HEGIS) conducted by the National Center for Education Statistics in 1977-78.

Faculty Rank Titles and Codes

The following titles identify the faculty rank title given an employee by an institution. Typically, faculty rank titles are associated with instructional assignments; however, other professional assignments frequently carry faculty rank titles. The code, therefore, allows faculty rank titles to be identified independently of any manpower resource category.

Faculty Rank	*Title*
1	Professor
2	Associate Professor
3	Assistant Professor
4	Instructor
5	Lecturer
6	Teaching Associate
7	Teaching Assistant
8	Undesignated Rank

Administrative Titles and Codes

The list of administrative titles has evolved over a number of years of data gathering by the College and University Personnel Association, the National Education Association, and the Higher Education General Information Surveys of the National Center for Education Statistics.

In its first field review edition of this manual in 1972, NCES fixed a list of administrative officers drawn from the above sources. No modifications were introduced between 1972 and 1976. The HEGIS administrative salary tabulations and the administrative officers lists in the higher education directories used this list and its numeric codes from 1972-73 through 1976-77.

In 1976, CUPA revised the list of titles used in their Administrative Compensation Survey, including the writing of new position descriptions. This 1976 CUPA list forms the base for the list of 75 administrative titles included in this manual, 59 from the CUPA list, and 16 additional titles for NCES survey purposes.

CUPA regrouped its 59 positions in process of revision and assigned them new position numbers. These CUPA position numbers are shown in the following pages, but the insertion of the 16 added positions at appropriate points requires use of a different sequence in this manual. Thus, the revised list of position titles displays the future NCES position numbers, the 1976-77 and 1975-76 CUPA position numbers, and the 1972-1976 HEGIS numbers.

New HEGIS 1977 Position Number	HEGIS 1972-76 Position Number	CUPA Position Number 1975-76	CUPA Position Number 1976-77	Position Title and Description
01	01	01	01	*Chief Executive Officer (President/Chancellor).* The principal administrative official responsible for the direction of all affairs and operations of an institution of higher education. Usually reports to a governing board.
02	—	02	02	*Chief Executive Officer Within a System (President/Chancellor).* The principal administrative official responsible for the direction of all affairs and operations of a campus or an institution of higher education which is part of a university-wide system. Reports to the President/Chancellor of the system.

New HEGIS 1977 Position Number	HEGIS 1972-76 Position Number	CUPA Position Number 1975-76	CUPA Position Number 1976-77	Position Title and Description
03	—	03	03	*Executive Vice President.* The principal administrative official responsible for all or most major functions and operations of an institution of higher education under the direction of the Chief Executive Officer. Acts for the Chief Executive Officer in the latter's absence.
04	58	—	—	*Assistant to the President.* The senior professional staff assistant to the Chief Executive Officer.
05	02	04	04	*Chief Academic Officer.* The senior administrative official responsible for the direction of the academic program of the institution. Functions typically include academic planning, teaching, research, extensions, admissions, registrar, library activities, and coordination of interdepartmental affairs. Reports to the Chief Executive Officer.
06	64	06	05	*Registrar.* The administrative official with principal responsibility for student enrollment and records. Functions typically include undergraduate registration, scheduling of classes, examinations and classroom facilities, maintenance of student records and related matters. Usually reports to the Chief Academic Officer.
07	39	07	06	*Director of Admissions.* The administrative official with principal responsibility for the recruitment, selection and admission of undergraduates. Participates in development of admissions criteria, and coordinates review of and decisions on applications. May also be responsible for the admission of graduate and professional students, or for scholarship administration or similar functions. Usually reports to the Chief Academic Officer.
08	05	08	07	*Head Librarian.* Directs the activities of all institutional libraries. Functions typically include selection and direction of professional staff, acquisitions, technical services, audio-visual services, special collections, and may include the direction of a school of library science. Usually reports to the Chief Academic Officer.
09	47	14	08	*Director, Institutional Research.* The administrative staff official responsible for the conduct of research and studies on the institution itself. Functions performed or supervised typically include design of studies, data collection, analysis, reporting, and related staff work in support of decision making.
10	03	12	09	*Chief Business Officer.* The senior administrative official responsible for the direction of business and financial affairs. Functions supervised typically include accounting, purchasing, physical plant and property management, personnel services, food services and auxiliary enterprises, and may include computer services, investments, budgets and security. Reports to the Chief Executive Officer.

New HEGIS 1977 Position Number	HEGIS 1972-76 Position Number	CUPA Position Number 1975-76	CUPA Position Number 1976-77	Position Title and Description
11	60	20	10	*Controller.* Directs accounting, payroll, cashiering audit and related functions. May also have responsibility for insurance programs, and office services such as mail and telephone. Usually reports to the Chief Business Officer.
12	—	—	11	*Bursar.* Supervises cashiering, billing, collection and related accounting functions, including those connected with student fees and loans, and auxiliary enterprises. May have responsibility for investment transactions and records, and bank deposits and withdrawals. Reports to Controller.
13	—	10	12	*Director, Information Systems.* The senior administrative official who directs the development, implementation and maintenance of administrative management information systems. Functions typically include responsibility for developing systems requirements, systems analysis and applications, planning of services and facilities, and coordination with and advice to users. May also include responsibility for direction of the administrative computer center.
14	22	09	13	*Director, Computer Center.* Directs the institution's major data processing facilities and services. Functions typically include computer programming, scheduling, determination of hardware and software requirements, computer operations, and staff selection and supervision.
15	49	15	14	*Director, Personnel Services.* Administers the institution's personnel policies and programs for staff, or faculty and staff. Functions typically include staff recruitment and employment, wage and salary administration, benefits, personnel records and reports, implementation of and compliance with personnel-related government requirements, and, where applicable, labor relations. Usually reports to the Chief Business Officer.
16	—	—	15	*Director, Labor Relations.* Administers the institution's collective bargaining agreements, including negotiation, interpretation and grievance handling. Acts as the administration's representative in contacts with union officials, and advises supervisors on labor relations matters.
17	—	16	16	*Affirmative Action/Equal Employment Officer.* The administrative official responsible for developing, administering and monitoring institution-wide programs designed to insure equality of opportunity without regard ace, color, sex or national origin, and to correct underutilization of minority members in any employment category.
18	50	17	17	*Director, Physical Plant.* The senior administrative official responsible for the construction, rehabilitation and maintenance of physical facilities. Functions typically include supervision of new construction and remodeling, grounds

New HEGIS 1977 Position Number	HEGIS 1972-76 Position Number	CUPA Position Number 1975-76	CUPA Position Number 1976-77	Position Title and Description
				and building maintenance, power plant operation; may include campus security, safety and fire prevention. Usually reports to the Chief Business Officer.
19	—	—	18	*Director of Security.* Supervises programs for maintaining security of personnel and property. Functions include development of security plans and procedures, supervision and training of campus police, investigation of criminal activities on campus, and liaison with local police authorities.
20	—	—	19	*Director of Safety.* Supervises programs for accident and occupational disease prevention covering students, faculty and staff. Develops safety regulations and procedures, investigates accidents, recommends corrective measures, conducts safety training programs, and ensures adherence to government regulations.
21	63	18	20	*Purchasing Agent.* Conducts central purchasing operations for procurement of equipment, materials and services required by the institution. Functions typically include preparation of specifications, selection of vendors, contracting, quotations and bidding, receiving and stores, approval of invoices and related matters. Usually reports to the Chief Business Officer.
22	45	19	21	*Director, Food Services.* Administers all institutional food services, whether directly managed and operated or catered. Functions typically include food purchasing, production and service facilities, equipment and practices, quality control, and related records. Usually reports to the Chief Business Officer.
23	59	22	22	*Manager, Bookstore.* Directs the operation of the campus bookstore. Functions typically include purchase and sale of new and used books, supplies and equipment, advertising, employment and supervision of sales staff, maintenance of sales and inventory records, and related matters. Usually reports to the Chief Business Officer.
24	42	13	23	*Chief Budgeting Officer.* The senior administrative officer responsible for the preparation and consolidation of the institution's budget. Develops budgeting policies and procedures, prepares related studies and forecasts, and monitors adherence to budget. May also include responsibility for long-range planning, unless there is a separate planning function.
25	51	—	24	*Contract Administrator.* Conducts administrative activities in connection with contracts and grants. Collects and disseminates information on possible sources, prepares or advises on preparation and submission of contract proposal, ensures adherence to institution's agencies' policies and

New HEGIS 1977 Position Number	HEGIS 1972-76 Position Number	CUPA Position Number 1975-76	CUPA Position Number 1976-77	Position Title and Description
				requirements, participates in contract negotiations and maintains related records and controls.
26	07	25	25	*Chief Public Relations Officer.* The senior administrative official responsible for public relations programs. Functions typically include public, legislative and community relations and information office functions; may include alumni relations and publications. Usually reports to the Chief Executive Officer.
27	46	26	26	*Director, Information Office.* Directs the provision of information about the institution to students, faculty and the public. Functions typically include news media relations, preparation and review of news releases and photographs, and preparation and distribution of news letters, information bulletins, magazines and other publications. Reports to the Chief Public Relations Officer.
28	—	—	27	*Director, Publications.* Directs editing, production and distribution of the institution's catalogs, bulletins, brochures, reports and other publications. Functions typically include editing and rewriting, design, illustrations, layout, and selection of printers.
29	40	—	28	*Director, Alumni Relations.* Coordinates alumni activities and relationships with the institution. Functions typically include liaison with and assistance to alumni organizations, arrangement of reunions and special alumni events and programs, and supervision of alumni records.
30	04	24	29	*Chief Development Officer.* The senior administrative official responsible for programs to obtain financial support for the institution. Functions typically include design, implementation and coordination of programs for obtaining annual, capital and deferred gifts from alumni foundations and other organizations; coordination of volunteer fund-raising activities; and related records and reports. In the absence of an organizational co-equal specifically assigned to the function, may have responsibility for public relations, alumni relations and information office activities. Reports to the Chief Executive Officer.
31	43	11	30	*Director, Community Services.* Directs or coordinates the conduct of special (usually non-credit) educational, cultural and recreational services to the community. May include scheduling, program development, and related promotional activities.
32	08	28	31	*Chief Student Life Officer.* The senior administrative official responsible for the direction of student life programs. Functions typically include student counseling and testing, student housing, student placement, student union,

New HEGIS 1977 Position Number	HEGIS 1972-76 Position Number	CUPA Position Number 1975-76	CUPA Position Number 1976-77	Position Title and Description
				relationships with student organizations and related functions; may include student health services and financial aid. Reports to the Chief Executive Officer.
33	09	—	—	*Dean of Men.* Directs the student life activities solely concerned with male students. Functions typically include fraternity relations, male discipline, and related matters.
34	10	—	—	*Dean of Women.* Directs the student life activities solely concerned with female students. Functions typically include sorority relations, female discipline, and related matters.
35	57	29	32	*Director, Student Union.* Directs the operation of a student union building and related student activities. Functions typically include supervision of food service facilities, activities programming, guest rooms, information desk, recreational facilities and arrangements for special functions or activities. Reports to the Chief Student Life Officer.
36	56	30	33	*Director, Student Placement.* Directs the operation of a student placement office to provide job placement and career counseling services to undergraduates, graduates and alumni. Supervises on-campus recruiting activities by prospective employers, and maintenance of related files and records. May also be responsible for placement of students on part-time jobs within or outside the institution. Usually reports to the Chief Student Life Officer.
37	53	31	34	*Director, Student Financial Aid.* Directs the administration of all forms of student aid. Functions typically include assistance in the application for loans or scholarships, administration of private, state or federal loan programs, awarding of scholarships and fellowships, student counseling on financial aid matters, and maintenance of appropriate records. Usually reports to the Chief Student Life Officer.
38	52	32	35	*Director, Student Counseling.* Directs non-academic counseling and testing services for students, including referral to outside counseling facilities. Usually reports to the Chief Student Life Officer.
39	—	—	—	*Religious Counsellor.* Directs the student life activities solely concerned with religious practices, observances and organizations.
40	55	21	36	*Director, Student Housing.* Directs all residence hall operations for students, including room assignments, residential life programs and activities, and enforcement of residence rules and regulations. May also administer off-campus

New HEGIS 1977 Position Number	HEGIS 1972-76 Position Number	CUPA Position Number 1975-76	CUPA Position Number 1976-77	Position Title and Description
				housing programs. Usually reports to the Chief Student Life Officer.
41	41	33	37	*Director Athletics.* Directs intramural and intercollegiate athletic programs. Functions typically include scheduling and contracting for athletic events, employment and direction of athletic coaches, recruitment of student athletes, publicity, ticket sales, and equipment and facilities maintenance.
42	61	—	—	*Head Basketball Coach.* Coaches the intercollegiate basketball program. Generally responsible for recruiting, coaching, and training athletes, supervision of assistant coaches, supervision of athletic residence and conditioning facilities, and similar functions.
43	62	—	—	*Head Football Coach.* Coaches the intercollegiate football program. Generally responsible for recruiting, coaching, and training athletes, supervision of assistant coaches, supervision of athletic residence and conditioning facilities, and similar functions.
44	54	27	38	*Director, Medical Services.* The senior administrative official with responsibility for administration of the institution's health programs for students, faculty and staff; infirmaries and clinics; and affiliated health-care activities.
45	06	05	39	*Chief Planning Officer.* The senior administrative official responsible for the direction of long-range planning and the allocation of the institution's resources. Functions typically include translation of the institution's goals into specific plans, facilities planning, budget planning, related research and feasibility studies, and may also include responsibility for current planning and budgeting, as well as state and federal relations. Reports to Chief Executive Officer.
46	65	23	40	*Staff Legal Counsel.* The principal salaried staff person responsible for advising the institution on its legal rights, obligations or privileges and on legal or legislative developments. May participate in litigation, and in legal aspects of union relations, contract negotiations and acquisition and other government agencies, or serve as principal contact with other legal counsel. (Do not report unless on institution's payroll.)
				Dean or Director. Serves as the principal administrator for the institutional program indicated:
47	11	35	41	*Agriculture*
48	12	34	42	*Architecture*
49	13	36	43	*Arts & Sciences*
50	14	37	44	*Business*

New HEGIS 1977 Position Number	HEGIS 1972-76 Position Number	CUPA Position Number 1975-76	CUPA Position Number 1976-77	Position Title and Description
51	15	—	—	*Continuing Education*
52	16	38	45	*Dentistry*
53	17	39	46	*Education*
54	18	40	47	*Engineering*
55	19	—	—	*Evening Division*
56	20	41	48	*Extension*
57	21	42	49	*Fine Arts*
58	22	43	50	*Graduate Programs*
59	23	44	51	*Home Economics*
60	24	—	—	*Journalism*
61	25	45	52	*Law*
62	26	—	—	*Library Science*
63	27	46	53	*Medicine*
64	28	47	54	*Music*
65	29	—	—	*Natural Resources*
66	30	48	55	*Nursing*
67	31	49	56	*Pharmacy*
68	32	—	—	*Physical Education*
69	33	—	—	*Public Health*
70	34	50	57	*Social Work*
71	35	—	—	*Special Session*
72	36	51	58	*Technology*
73	—	—	—	*Theology*
74	37	—	—	*Veterinary Medicine*
75	38	52	59	*Vocational Education*

Appendix C

NCHEMS Program Classification Structure

1.0—Instruction Program

The Instruction program includes those activities carried out for the express purpose of eliciting some measure of "educational change" in a learner or group of learners. "Educational change" is defined to include (1) the acquisition or improved understanding of some portion of a body of knowledge; (2) the adoption of new or different attitudes, and (3) the acquisition or increased mastery of a skill or set of skills. The activities that may be carried out to elicit these educational changes include both "teaching" activities and "facilitating" activities (which are more commonly associated with the design and guidance of a learning experience rather than with teaching something to a learner). The facilitating role can be distinguished from that of academic advising in that while facilitating is an integral part of the design and conduct of the instructional program, academic advising is generally carried out in support of the instructional program (for example, clarifying requirements, describing alternatives). The Instruction program includes both credit and noncredit instructional offerings.

The subprograms within the Instruction program are:
1.1 General Academic Instruction (Degree-Related)
1.2 Professional Career Instruction (Degree-Related)
1.3 Vocational/Technical Instruction (Degree-Related)
1.4 Requisite Preparatory/Remedial Instruction
1.5 General Studies (Nondegree)
1.6 Occupation-Related Instruction (Nondegree)
1.7 Social Roles/Interaction Instruction (Nondegree)
1.8 Home and Family Life Instruction (Nondegree)
1.9 Personal Interest and Leisure Instruction (Nondegree)

2.0—Research Program

The Research program includes those activities intended to produce one or more research outcomes including new knowledge, the reorganization of knowledge, and the application of knowledge. It includes both those activities carried out with institutional funds and those carried out under the terms of agreement with agencies external to the institution. Research activities may be conducted by any number of organizational entities including research divisions, bureaus, institutes, and experimental stations. Instructional activities such as workshops, short courses, and training grants should not be classified within the Research program but should be classified as part of Instruction unless they satisfy the specific criteria outlined for inclusion within the Public Service program.

The subprograms within the Research program are:
2.1 Institutes and Research Centers
2.2 Individual or Project Research

3.0—Public Service Program

The Public Service program includes those program elements that are established to make available to the public the various unique resources and capabilities of the institution for the specific purpose of responding to a community need or solving a community problem. Included in this program are the provision of institutional facilities as well as those services of the faculty and staff that are made available outside the context of the institution's regular instruction and research programs.

The subprograms within the Public Service program are:
3.1 Direct Patient Care
3.2 Health Care Supportive Services
3.3 Community Services
3.4 Cooperative Extension Services
3.5 Public Broadcasting Services

4.0—Academic Support Program

The Academic Support program includes those activities that are carried out in direct support of one or more of the three primary programs (Instruction, Research, Public Service). The activities that should be classified in this program include (1) activities related to the preservation, maintenance, and display of both the stock of knowledge and educational materials (for example, library services and museums), (2) activities that directly contribute to the way in which instruction is delivered or research is conducted (for example, educational media services, academic computing support, ancillary support), (3) those activities directly related to the administration of academic programs, and (4) those activities related to the professional development of academic personnel.

The subprograms within the Academic Support program are:
4.1 Library Services
4.2 Museums and Galleries
4.3 Educational Media Services
4.4 Academic Computing Support
4.5 Ancillary Support
4.6 Academic Administration
4.7 Course and Curriculum Development
4.8 Academic Personnel Development

5.0—Student Service Program

The Student Service program includes those activities carried out with the objective of contributing to the emotional and physical well-being of the students as well as to their intellectual, cultural, and social development outside the context of the institution's formal instruction program. The Student Service program attempts to achieve this objective by (1) expanding the dimensions of the student's educational and social development by providing cultural, social, and athletic experiences, (2) providing those services and conveniences needed by students as members of an on-campus, resident student body, and (3) assisting students in dealing with personal problems and relationships as well as in their transition from student to member of the labor force.

The subprograms within the Student Service program are:
5.1 Student Service Administration
5.2 Social and Cultural Development
5.3 Counseling and Career Guidance
5.4 Student Health/Medical Services
5.5 Student Auxiliary Services
5.6 Intercollegiate Athletics

6.0—Institutional Support Program

The Institutional Support program consists of those activities carried out to provide for both the day-to-day functioning and the long-range viability of the institution as an operating organization. The overall objective of the Institutional Support program is to provide for the institution's organizational effectiveness and continuity. It does this by (1) providing for planning and executive direction, (2) providing for administrative and logistical services, (3) maintaining the quality of the physical environment, (4) enhancing relationships with the institution's constituencies, and (5) providing services and conveniences for the employees of the institution.

The subprograms within the Institutional Support program are:
6.1 Executive Management
6.2 Financial Management and Operations
6.3 General Administration and Logistics Services
6.4 Administrative Computing Support
6.5 Physical Plant Operations
6.6 Faculty and Staff Auxiliary Services
6.7 Public Relations/Development
6.8 Student Records

7.0—Independent Operations Program

The Independent Operations program allows classification of those program elements that are independent of, or unrelated to, the primary missions of the institution. The Independent Operations program includes those operations that are owned or controlled by the institution as investments, but *only* if they are financed as part of the institution's current operations. Operations that represent investments of the institution's endowment funds should be accounted for in the Endowment Fund Group and therefore should not be classified in the PCS (which is used to classify only current operations and accounts).

The subprograms within the Independent Operations program are:
7.1 Independent Operations/Institutional
7.2 Independent Operations/External Agencies

8.0—Student Access Program

The Student Access program includes those activities carried out with the objective of obtaining a student body having those characteristics the institution desires (such as academic qualifications and capabilities, socio-economic status, racial/ethnic background, athletic abilities). Included in this program are those activities carried out (1) to identify prospective students, (2) to promote attendance at the institution, (3) to provide incentives related to the decision of prospective students to attend the institution (including financial assistance), and (4) to process the admissions applications of potential students. It does not include promotional activities designed to create a favorable image of the institution with the general public (those activities should be classified in subprogram 6.7, Public Relations/Development), but it does include those activities specifically intended to influence the attendance decisions of prospective students (for example, participation in high school "college fairs").

The subprograms within the Student Access program are:
8.1 Student Recruitment and Admissions
8.2 Financial Aid Administration
8.3 Scholarships
8.4 Fellowships

Appendix D

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(Preliminary Edition)

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Appendix E
Commentary

A. The Concept of Service-Months

Throughout the manual, there is a focus on manpower as a resource needed and utilized by institutions to achieve their programmatic objectives, and on the importance of the wise management of that resource. A consequence of this perspective is the requirement that some adequate way to measure manpower resources be available. Historically, "full-time equivalents" (FTE) has been the most common measure of manpower resources. (Where an FTE is defined as the resource equivalent of one individual working full-time for a particular period of time.) For many categories of employee, this measure is quite appropriate since common practice holds that the "particular period of time" is twelve months. There are other categories of staff, particularly the instruction/research staff, for which the period of time varies widely from institution to institution. At some institutions, the time period involved is 11 or 12 months; at others the period may be as short as 8 months. It has not been possible, over a period of many years, to obtain agreement on the length of this basic time period. No single value suits all users. The use of the service-month concept is an attempt to avoid that issue by focusing only on the numerator of the following calculation and leaving the selection of the appropriate value of the denominator to the user.

FTE = Service-months/Service-months per FTE

The concept of service-months is consistent with the widely accepted concept of FTE while avoiding the problems associated with the common agreement about the value of the denominator in the FTE calculation. It should be noted that this problem is directly analogous to the problem associated with calculating numbers of FTE graduate students. For the most part there is agreement on the form of the calculation, that is:

$$\text{FTE Grad Students} = \frac{\text{Grad. Student Credit Hours (SCH)}}{\text{SCH per FTE graduate student}}$$

While the form of the calculation is quite readily agreed to, the numerical value assigned to the denominator is not. In practice, the values assigned by different users vary from 18 to 30. In the absence of agreement on this value, users have two choices; they can establish a conventional value and ask that all providing the data use that value or they can collect data pertaining only to the numerator and perform the calculation of FTE *ex post facto* using the value most appropriate to the user's needs. It is submitted that the latter approach is both more acceptable to data providers and results in data that are greater utility to a variety of users.

As an alternative to the concept of FTEs (and the surrogate concept of service-months) some have proposed that the measure of manpower resources be expressed in terms of full-time employment for an "academic year"—in short, that the basic time period be for the undefined period of an academic year.

Some experts in academic administration make the point that the instruction/research staff member is commonly, in many institutions, employed for a period known as the "academic year." While the academic year differs in precise length from institution to institution, there is an accepted and conventional conceptualization of the academic year as being a calendar period going from the fall of the year to the late spring of the following year, during which time an enrolled student completes one year of a four-year program. It is often stated as a 9-10 month period. However, there are academic years as short as 8 months and there are academic years as long as 10½ months. In rebuttal, it is argued that an instruction/research staff member who is employed for the academic year is employed to apply a certain amount of work effort, primarily cerebral, capable of being performed at times and places having no necessary relationship to the locus of work of any standard work period. It is thereby contended that whatever may be the calendar length of the academic year, the amount of input and effort that the instruction/research staff member applies to his full-time assignment during this academic year is equal. Therefore, goes the argument, this is a more precise measure of the staff resource input into instruction/research than would be a service-month, since the amount of time and effort that a staff member would apply during any given service-month would vary. In addition, the argument runs, to measure in terms of months would result in false differences. It is contended that the instruction/research staff member who works for an 8-month academic year is contributing as much of himself and is applying as much effort, and is a resource input to the institutional program, equal to that of the instruction/research staff member who puts in a 10-month academic year.

Since this thesis is put forward by persons of prestige, standing, and experienced knowledge in higher education, it must be influential, and it must be considered.

The authors of this manual did not accept this position, as

is obvious from a reading of the volume. There were a number of reasons for this, which reasons, at a minimum, persuaded them that the academic year was not a fixed and consistent quantity.

The most persuasive piece of evidence to the effect that this concept of the academic year is not consistent as among institutions, is the practices of the institutions themselves. At many institutions, an instruction/research staff member can work for the academic year, and then is permitted to engage in an additional 3 months of work for pay from the institution, and in addition, may still have a one-month vacation period. In other words, the institution is stating, in the clearest possible way, that the academic year is two-thirds of the calendar year. Still other institutions permit as little as one-month of paid employment in addition to a contract and assignment for the academic year. In such case, it is obvious that the academic year is something considerably more than two-thirds of the calendar year, although the varying vacation practices make it difficult to say precisely what fraction of the calendar year this is.

An additional piece of evidence, also provided by the institutions, is that at some institutions a full-time student who attends for the full period of time during which an instruction/research staff member is employed for the academic year, can complete varying amounts of his degree program. For instance, at some institutions, the student who attends for the full period of the employment academic year, can actually complete two and one-half semesters. Those institutions are saying that their academic year represents twenty-five percent more than the academic year of the two-semester institutions. Again, while it is not possible to equate exactly the differing contributions of instruction/research staff member time and effort into these academic years, it does seem reasonable to conclude that they are different.

These two variations in institutional practices convinced the authors that the academic year was not the fixed and consistent measure that it is believed to be in some quarters.

As the work on this manual progressed, the authors were able to articulate for themselves an understanding that all designers of new systems of records must, at least unconsciously, have. This is the realization that no system of record-keeping that is intended to improve on a present system can be adopted by any user without any possibility of modification of some current practices on the part of the user. In this case of the service-month, to take a very obvious example, it would be necessary for an institution to decide on the beginning date of service for an instruction/research staff member who had a contract for the academic year. One can readily grant that in many cases, this selection would have some elements of arbitrariness. On the other hand, experience in the operation of any institution should permit a judgement and selection of that date on which the instruction/research staff member is required to be available for duty. It does not matter that he may have started in advance of this date to prepare himself for the coming academic year. All responsible professionals undertake preparation for their job in advance for the first day of duty. Similarly, the institution can set a date, such as the June commencement date, perhaps, on which, conventionally, the instruction/research staff member on an academic year appointment is free of assignment.

It is recognized that many institutions may wish to establish a convention within their institution as to the instruction/research staff member status during the various vacation periods. At most institutions, the instruction/research staff member is on duty and paid during these periods. The assumption in such cases is that he is working on research, or studying, or grading examinations, or reading theses, or whatever.

It is additionally recognized that institutions do not, necessarily, make the duty period coincident with the pay period. This is not a major problem. There are some institutions that employ an instruction/research staff member for the academic year, but give him his salary in twelve equal monthly installments stretching over the fiscal year. Others pay the salary in 9, or 10, or 11 payments. This matters not at all, and should not influence the establishment of the conventional beginning and end of the academic year. By the same token, the institutions may establish conventions as to whether or not the instruction/research staff member is on duty during the vacation periods and this convention may also be unrelated as to whether or not there is a full month's pay for the period during which the vacation occurs.

Thus, after a great deal of interaction with the educational community, the authors feel that no superior alternative to the measure of service-months has yet been offered, and it has been retained.

B. Instruction/Research Staff Nomenclature

This manual, for reasons that were persuasive to the authors, deliberately avoids the use of much familiar terminology in categorizing and defining the instruction/research staff. The most noticeable omission, of course, is of the term "faculty." In addition, while the standard professorial ranks are retained for purposes of salary reports, and are referred to in discussion and definitions, they are not

retained for purposes of tabulating staff by function. Other familiar terms, such as "academic" and "teaching staff," are also not used in this manual. The reason for deciding not to use these terms is simply that they have acquired a variety of definitions and inclusions at different institutions. It is no longer possible to write a single definition for any of these terms that would be accepted. Therefore, the authors deemed it wise to use terms that do not yet acquired any such hard, fixed, and inconsistent, definitions. This, as may be imagined, is met, minimally with unease, and maximally with great concern and criticism.

The critics of the early drafts of the manual made the point that the institutions of higher education are comfortable with, and accustomed to, certain kinds of terminology that have been in use over the long history of higher education. This is very true. They point out that a system of records and statistics is more likely to meet with acceptance if it makes use of familiar terminology that permits the institutions continuity of policies and management practices over time and is less disruptive of their time series and their internal relationships. This is also true, but these legitimate and appropriate concerns do not out-weigh the countervailing considerations.

One of the important concerns of the authors as they developed this manual, was that there is no consistent rule for inclusion in the group called "faculty" at institutions of higher education. There are some institutions in which the research staff is routinely included in the faculty; there are other institutions in which the research staff has a different grouping and they are not faculty. There are institutions in which the total professional staff in the library is included in the faculty; in still other institutions the administrators are part of the faculty. These practices are appropriate to the institutions in which they obtain. However, aggregations of data from these "faculty" groups are not comparable. They are not exchangeable. They are not informative to those who would use the data for policy decisions and planning outside the institution.

Current trends in the management of higher education data are toward the development of uniform and consistent categories of data, consistently defined in a manner that is universally acceptable, so that aggregates of data from institutions may be exchanged without extended descriptions of groups and subgroups contained within the terminology.

It would be neither appropriate nor feasible to attempt a redefinition of the term "faculty" and to have any possibility of acceptance at any institution except the institution that was already employing precisely that definition. Therefore, the authors assume that every institution will retain it's own definition of faculty and will continue to use that term in a manner that is appropriate to the purposes of that institution. However, for purposes of developing normative data and for the exchange of date, this manual contains an alternative set of terms and measures.

The same kind of problems faced the authors when they considered the matter of the faculty ranks. It is argued that the classification of full, associate, and assistant professor and instructor still have relevancy on campus, are used by the American Association of University Professors for salary analysis, are used by institutions both for internal analysis as to the status of their faculties, and are used in the projection of future manpower management problems. The authors were forced to concede that salary surveys, at least in the foreseeable future, will use the professorial titles. However, they also recognize that these titles have become decreasingly precise. The principal change that has taken place is that there was a time when the total "faculty," those people who taught courses and usually already had a doctoral degree, were divided into the four groups ranging from full professor to instructor. The situation still prevails in many institutions, and particularly in the professional schools. On the other hand, there are a large number of institutions that now divide that very same group into only the three professorial ranks, reserving the instructor ranks for persons who are still working to attain their full status as scholars. This means that in some institutions the range of "faculty" salary is from the bottom of the assistant professor to the top of the full professor; at another institution, that very same range is spread over the four ranks from the bottom of the instructor to the top of the full professor. It is quite possible that the two institutions would have the same number of faculty, and indeed, would be paying the same salaries. In the one case, by the inclusion of the predoctoral groups in the instructor class, the overall mean salary would seem lower. Institutions feel so strongly about the preservation of these ranks that the authors have attempted nothing with respect to making these salary comparisons more meaningful. However, when staff input data are used for the development of resource input measures, then it is no longer desirable, indeed it is erroneous, to use those rank designations. Therefore, given that a system of records for manpower budgeting and accounting is for the purpose of better management through improved categorizations of staff, it was decided to use some new and more precise designations that could be utilized in addition to the traditional ones.

An additional problem in this area is that there are an increasing number of institutions that use only a single rank

for the instructional staff. For these institutions, the customary professor-through-instructor range is useless. However, if we classify the instructional staff in terms of degrees of responsibility and seniority that the staff members are assigned, these institutions can classify their staff in a manner that is comparable with institutions that do use ranks.

For all of the above reasons, the authors have not modified the draft document in response to the comments.

Glossary

Academic Discipline. *See* Discipline.

Academic Year. The institutionally defined consecutive period of time used as a reference for record keeping related to student programs, faculty participation and employment, student attendance, and other matters related to academic affairs.

An academic year may be equivalent to a fiscal year or may include only a subset of the sessions during which course work is offered. Typically an academic year is equated to two semesters, three quarters, two trimesters, or the period of time covered by the 4-1-4 plan, as described below:

(1) *Quarter:* The quarter calendar consists of three quarters with about twelve weeks for each quarter of instruction. There may be an additional quarter in the summer.
(2) *Semester:* The semester calendar consists of two semesters during the typical academic year with about sixteen weeks for each semester of instruction. There may be an additional summer session.
(3) *Trimester:* The trimester calendar is composed of three terms with about fifteen weeks for each term of instruction.
(4) *4-1-4:* The 4-1-4 calendar is composed of four courses taken for four months, one course taken for one month, and four courses taken for four months. There may be an additional summer session.
(5) *Other (Specify):* Describe predominant calendar systems that are not defined by any of the above terms.

Adjunct Appointments. Appointments to faculty or staff who serve in a temporary or auxiliary capacity.

Administrative Professionals. *See* Executive/Administrative/Managerial Professionals.

American Indian or Alaskan Native. *See* Race/Ethnic Identification.

Asian or Pacific Islander. *See* Race/Ethnic Identification.

Associate Degree. *See* Highest Degree Earned.

Bachelor's Degree. *See* Highest Degree Earned.

Black (not of Hispanic origin). *See* Race/Ethnic Identification.

4-1-4 Calendar System. *See explanation under* Academic Year.

Certificates. *See* Highest Degree Earned.

Clerical Employees. *See* Office/Clerical Employees.

Crafts/Trades Employees. Individuals employed for the primary purpose of performing (manually) skilled activities in a craft or trade. Includes employees such as carpenters, plumbers, and electricians. Includes only *nonexempt* employees. See Appendix A of this document.

Degrees. *See* Highest Degree Earned.

Department. The basic organizational unit of a college or university. Includes both academic and administrative organizational units.

Diplomas. *See* Highest Degree Earned.

Discipline. Generally, a branch of knowledge or teaching. Discipline partially denotes activity centers that produce instruction, organized research, or public service outcomes. In some cases, "discipline" may be synonymous with "department."

Disciplines are categorized according to the standard taxonomy of fields of study used in the Higher Education General Information Survey (HEGIS) published by the National Center for Education Statistics under the title. *A Taxonomy of Instructional Programs in Higher Education* (Huff and Chandler, 1970). NOTE: A new taxonomy is currently in preparation and can be expected to replace the currently used taxonomy in the future.

Doctoral Degree. *See* Highest Degree Earned.

Employee. Any individual being compensated by the institution for services rendered. Included are individuals who donate their services, if the services performed are a normal part of the institution's programs or supporting services and would otherwise be performed by compensated personnel. Specifically excluded are employees of firms providing services to the institution on a contract basis.

Executive/Administrative/Managerial Professionals. Exempt employees employed for the primary purposes of managing the institution or a customarily recognized department or subdivision thereof. By convention this category includes deans but most commonly, although not always, will exclude chairmen of academic departments (who usually are classified as Instruction/Research Professionals). Inclusion in this category requires the individual to have supervisory responsibilities. See Appendix A of this document.

Exempt Employee. An employee whose conditions of employment and compensation are *not* subject to the provision of the Fair Labor Standards Act as amended. Exempt employees are not eligible for overtime payment. According to Section 13 of the act, an exempt employee is "any employee employed in a bona fide executive, administrative, or professional capacity. . ."

Faculty. Those individuals employed at an institution to perform both instruction and research activities. Because this designation is frequently applied also to institutional staff who do not have instruction or research functions, the term is not useful in manpower accounting.

Faculty Activity Report. Report submitted by individual faculty members indicating the number of hours per week (or percent of time) they devote to different kinds of activities and to different institutional programs.

First Professional Degree. *See* Highest Degree Earned.

Fiscal Year. The institutionally defined consecutive twelve-month period for which financial transactions or a summary are available.

Full-Time Equivalent (FTE). The equivalent of one person who is deemed to be carrying a full load or having a full-time appointment in accordance with an institutionally agreed upon convention for converting numbers of specific individuals (students or employees) to an equivalent number of full-time persons.

Full-Time Personnel. Those individuals available for full-time assignment, at least for the period being reviewed or analyzed or those who are designated as "full-time" in an official contract, appointment, or agreement. Normally, those employees who work approximately 40 hours per week for the full year are considered full-time employees. Individuals who are on sabbatical leave should be included as full-time if that was the status of their employment prior to sabbatical. (Refer to Chapter 3, Section C, for a discussion of procedures for calculating full-time or part-time status of employees.)

Headcount. A count of the number of individuals employed, without regard to period of employment or amount of time available.

HEGIS. Higher Education General Information Survey. The annual survey of all institutions of higher education conducted by the National Center for Education Statistics, Department of Health, Education, and Welfare.

Highest Degree Earned. Awards or titles conferred upon students for the completion of a course of study or program. Honorary degrees should not be considered. The following categorizations will be used:
(1) *Certificates and Diplomas (less than one year):* An award for the successful completion of a course of study or program offered by a postsecondary institution. Certificates and diplomas in this category are awarded for completion of any program covering any time span less than one academic year.
(2) *Certificates and Diplomas (equal to or more than one year):* An award for the successful completion of a program offered by a postsecondary institution. Certificates and diplomas in this category are awarded for completion of any program covering any time span between one academic year and two academic years.
(3) *Associate Degree (two years or more):* The degree granted upon completion of an educational program less than baccalaureate level and requiring at least two but less than four academic years of college work.
(4) *Bachelor's Degree:* Any earned academic degree carrying the title of "bachelor."
(5) *First Professional Degree:* The first earned degree in a professional field. Only M.D., D.O., D.D.S., D.V.M., L.L.B. or J.D. (if J.D. is the *first* professional degree), O.D., B.D., M.Div., Rabbi, Pod.D., and P.M. should be included.
(6) *Master's Degree:* Any earned academic degree carrying the title of "master." In liberal arts and sciences, the degree customarily granted upon successful completion of one or two academic years of work beyond the bachelor's. In professional fields, an advanced professional degree beyond the first professional degree which carries master's designation, for example, L.L.M., M.S. (Master of Surgery), M.S.W. (Master of Social Work).
(7) *Doctoral Degree:* An earned academic degree carrying the title of "doctor." Not to be included are first professional degrees such as M.D., D.D.S.
(8) *Not Elsewhere Designated:* Includes all other categories of degrees/diplomas/certificates that cannot be categorized in any of the preceding categories, such as specialist degrees for work completed toward a certificate, for example, Educational Specialist.

Hispanic. *See* Race/Ethnic Identification.

Instruction/Research Professionals. Individuals employed for the primary purposes of performing instruction and research activities. Typically includes only exempt employees (although in some, primarily proprietary institutions, they may be nonexempt). See Appendix A of this document.

Managerial Professionals. *See* Executive/Administrative/Managerial Professionals.

Manpower Budgeting. The assignment of particular amounts of each category of manpower resource to specific institutional programs.

Manpower Resource Classification. A managerial activity to identify employees in terms of the kinds of assignments the employing institution gives those employees, with no necessary relationship to the vocational self-identification by the employee.

Manpower Resource Categories. Certain general categories of employees who primarily perform certain general kinds of activities. Each category of employee represents a different kind of manpower resource available to the institution. (See Appendix A for a detailed discussion of the seven institutional categories and subcategories appropriate to each.)

Master's Degree. *See* Highest Degree Earned.

Nonexempt Employee. An employee whose conditions of employment and compensation are subject to the provisions of the Fair Labor Standards Act of 1938, as amended.

Nonresident Alien. *See* Race/Ethnic Identification.

Office/Clerical Employees. Individuals employed for the primary purpose of performing clerical activities. This category includes only *nonexempt* employees. See Appendix A of this document.

Organizational Unit. An academic department or other organizational division that has fiscal, programmatic, and administrative responsibility for a specific set of activities.

Part-Time Personnel. Those individuals employed full-time for short periods of time (less than the period under review) as well as those not available to the institution for 100 percent assignment even though they may be employed for the full period. (Refer to Chapter 3, Section C, for a discussion of procedures for calculating full-time or part-time status of employees.)

Personnel Data. Information about specific individuals, their characteristics, their performance, and their contributions to their profession and the institution.

Program Classification Structure (PCS). The Program Classification Structure is a means of identifying and organizing the activities of higher education institutions in a program-oriented manner. See Chapter 4 and Appendix C of this document.

Quarter System. *See explanation under* Academic Year.

Race/Ethnic Identification. The concept of race as used by the U.S. Office for Civil Rights, the Equal Employment Opportunity Commission, and other Federal agencies, does not denote clearcut scientific definitions of anthropological origins. An employee may be assigned to a group on the basis of self-identification, appearance, or community regard. No person may be included in more than one race/ethnic category.

White (not of Hispanic origin): All persons having origins in any of the original peoples of Europe, North Africa, the Middle East, or the Indian subcontinent.

Black (not of Hispanic origin): All persons having origins in any of the black racial groups.

Hispanic: All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

Asian or Pacific Islanders: All persons having origins in any of the original peoples of the Far East, Southeast Asia, or the Pacific Islands. This area includes, for example, China, Japan, Korea, the Philippine Islands, and Samoa.

American Indian or Alaskan Native: All persons having origins in any of the original peoples of North America.

In addition to the FICE categories above, we suggest the following distinction should be made:

Nonresident Aliens: Those members of the aforementioned groups who have not been admitted to the United States for permanent residence. Resident aliens, non-citizens who have been lawfully admitted for permanent residence (and who hold a "green card" Form 1-1511), are to be counted in the appropriate race/ethnic categories along with United States citizens.

Rank/Title. The institutionally designated official title or grade of faculty. See Appendix B of this document.

Semester System. *See explanation under* Academic Year.

Service Employees. Individuals employed for the primary purpose of performing service (often unskilled) activities. Includes such employees as custodians, groundskeepers, security guards, food service workers, and so forth. Includes only *nonexempt* employees. See Appendix A of this document.

Service-Month. A service-month is defined as being equivalent to one individual working full-time for the period of one month. Service-months are calculated by multiplying the percent workload (relative full-timeness) by the number of months of the individual's appointment.

Sex. The sex of a person; male or female.

Specialist/Support Professionals. *Exempt* employees employed for the primary purpose of performing (typically) academic support, student service, and institutional support activities. Excludes individuals who have executive or managerial (supervisory) responsibilities in these areas. Includes such employees as librarians, accountants, systems analysts, student personnel workers, counselors, salesmen, recruiters, and so forth. See Appendix A of this document.

Technical Employees. Individuals employed for the primary purpose of performing technical activities (that is, activities pertaining to the mechanical or industrial arts or the applied sciences). This category includes only *nonexempt* employees. See Appendix A of this document.

Tenure. The institutional designation that serves to identify the status of the employee with respect to permanence of appointed position. The following tenure designations indicate status of individuals:

Tenured—individuals who have been quoted tenure

Nontenured—individuals who are eligible for but have not been quoted tenure

Not eligible—individuals who are not eligible for tenure.

Tenure is a "holding" and in employment refers to the term or time that one will hold an appointment. Thus, one's tenure can be for a fixed or determinable term, or it can be indefinite.

In this manual, the term "tenure" is not used without modifiers. The categories of tenure are:

a. Indefinite tenure, terminable only by special procedures
b. Appointment for a fixed term of more than one year
c. Appointment for one year
d. Appointment for term of a budget
e. Indefinite tenure, summarily terminable without recourse.

Title. *See* Rank/Title.

Trimester System. *See explanation under* Academic Year.

Vocation. An occupation or profession for which an individual deems himself specifically suited or qualified.

White (not of Hispanic origin). *See* Race/Ethnic Identification.

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